DOCUMENT RESUME

ED 197 918 RC 012 513

TITLE Southern Small Farm Management Workshop (Nashville, Tennessee, October 25-27, 1978). Bulletin Y-146.
INSTITUTION Tennessee Valley Authority, Muscle Shoals, Ala.
PUB DATE Sep 79
NOTE 115p.
AVAILABLE FROM Ovid Bay, SEA-Extension, U.S. Dept. of Agriculture, Washington, DC 20250.

EDRS PRICE MF01/PC05 Plus Postage.
DESCRIPTORS *Adult Farmer Education; Animals; Aspiration; Decision Making; *Extension Education; Farmers; *Farm Management; Job Training; *Marketing; Needs; Paraprofessional Personnel; *Program Development; Program Evaluation; *Rural Education; Rural Extension; Workshops
IDENTIFIERS Cooperative Extension Service; Southern Rural Development Center MS; United States (South)

ABSTRACT

The purpose of the workshop was to evaluate efforts by the Cooperative Extension Service to provide educational services to the small farmer (one who markets less than $20,000 worth of products a year), to exchange ideas on small farm management, and to recommend program directions for the future. Experts in various farm management areas participated: the program included the following talks and panel discussions: Background, Effort, and Problems Related to Extension's Program for Small Farmers; Small Farm Programs in the Southern United States; Serving Farmers Through General Ongoing Extension Programs in Kentucky, Alabama, and Louisiana; How Small Farmers Get Information and Make Decisions; Information and Help Available at the Southern Rural Development Center; Needs and Aspirations of People on Small Farms; How to Determine Goals, Values, and Aspirations of Small Farm Families; Training Paraprofessionals in North Carolina; Training Small Farm Family Educational Assistants; Economically Oriented Tools or Concepts That Can Be Used With Limited Resource Farmers; The Role of Paraprofessionals Working With Limited Resource Farmers; Small Farm Marketing Problems; Marketing Feeder Pigs and Feeder Calves by Limited Resource Farmers; Direct Marketing of Fresh Fruits and Vegetables; and Ideas for Development Programs with Small Farmers. (AN)

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SOUTHERN Small Farm Management WORKSHOP

October 25-27, 1978 • Sheraton Hotel • Nashville, Tennessee

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Background and Purpose of the Workshop

• The Cooperative Extension Service has long been concerned about the welfare of people on small farms. In fact, from its beginning, Extension's purpose has been to provide educational services to those operating family farms. Of course, not all farmers have responded equally to our educational efforts. Not all have been able to keep up with the economic changes that have occurred in agriculture. Some have referred to those who, for one reason or another, have not kept pace with economic and cultural changes as "the people left behind."

STEPHEN Q. ALLEN
Extension Farm Management Specialist
University of Kentucky

Long Standing Concern

Many efforts have been made by Extension, TVA, vocational agriculture and others to help these people to adjust. Some of you remember the old "Farm and Home Development Program," the "Rapid Adjustment Program," and other activities devoted to helping small farm families adjust to change.

Even while special efforts were being made, Extension continued to offer its regular programs and services to all farmers regardless of size. However, many still feel that we are not doing enough for small farmers.

The Southern Farm Management Extension Committee has been concerned about the welfare of small farmers for many years. We have had a subcommittee or task force assigned to this area for at least 25 years. We have regional meetings or workshops at locations in the South. In February 1967, we published the Southern Farm Management Extension Publication No. 11, *Developing Plans With Low Income Farmers*.

Who Is Small?

Just who is a small farmer? We could spend this entire workshop just trying to agree on a definition. Most agree a small farmer is one who markets less than $20,000 worth of products a year. According to this definition about 2/3 of the farms in the U.S. are small. In Kentucky about 85% of our farms are in this category. My guess is that the 1974 Census of Agriculture will put at least 80% of the farms in the South in the under $20,000 group. There are many counties in the south in which more than 90% of the farms report sales of less than $20,000. Surely Extension and other agencies are already working with many of these farmers.

Low farm sales do not in themselves mean low family incomes. Data from the 1974 Census indicate that farmers in Kentucky reporting the lowest value of sales (under $2,500) had average total family incomes of almost $15,000. Of course, about $14,000 of this was from off-farm sources. Such level of income is about three times the official poverty threshold for a farm family of four. I think the data from your state will show similar results. Does this mean that all farm families are fairly well off? I doubt that it does.

Most of you know that the Food and Agricultural Act of 1977 provided limited funds to Extension to "assist small farmers in upgrading their farming operations." This act defined a small farmer as, "any person who depends on farming as his primary source of income, whose gross annual sales from farming operations are less than $20,000, and whose income from nonfarm sources is less than $5,000."

Three Measures

It seems that three criteria are set out in this act for one to qualify as a small farmer. These are:

1. Farming provides the primary source of income.
2. Gross farm sales are less than $20,000.
3. Nonfarm income totals less than $5,000.

Our committee's study of the 1974 census leads us to conclude that:

1. 81% of the farms in the Southern region have gross sales of less than $20,000.
2. We estimate that 41% of southern farm families have low family incomes (less than $5,000 "net" from both farm and nonfarm sources).
3. Perhaps one-fourth of the low family income farms are operated by young farm operators (45 or younger). There is a total of 110,000 young farm operators in the South or an average of about 9,000 per southern state.

Emphasis on Young Families

We believe that these younger families should make up the bulk of those with whom we should put forth our efforts in special small farm management

programs in the future. Much work is already under way with small farmers in the Southern States. Our committee in a recent survey found that 12 of the 13 states had some type of small farm program or activity. Ten of the states indicated that their programs involved the assistance of paraprofessionals or other types of Extension assistants. However, only about 14% to 15% of the counties in most states were included in the small farm effort. In most states the program was under the direction of the local county Extension staff or agent. Subject matter and program specialists were used in training or program direction roles.

Our purpose in this workshop is to evaluate the efforts now being made, exchange ideas and to recommend program directions for the future. We hope you, in your workshop groups on Friday, will give serious consideration to suggesting future efforts.

Existing Programs with Small Farmers

Background, Effort, and Problems Related to Extension's Program for Small Farmers

D. H. SEASTRUNK
Assistant Director
Texas Agricultural Extension Service

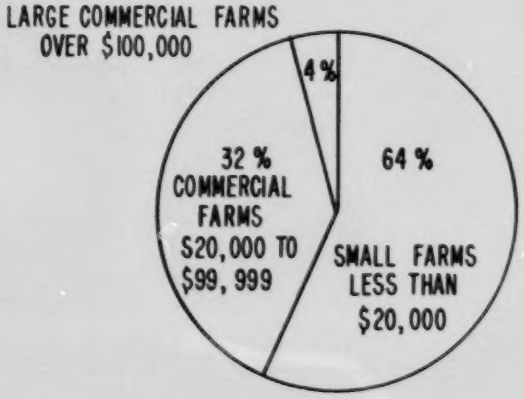
• Historically, a national policy has existed to protect and ecourage the family farm concept. This philosophy was the basis for much of our national farm policy supported by the U.S. Department of Agriculture.

Because of this policy, American agriculture has made enormous strides to become the most efficient in the world. The Cooperative Extension Service is a major contributing factor to this success. Extension has served as a vital link between research conducted by land-grant institutions and the U.S. Department of Agriculture by making this information available to the American farmer in a practical and usable form.

Growth Takes Its Toll

Whenever there is tremendous growth, two things generally happen. First, for better or worse, a number of farmers are forced out of business. The decline in farm population among American farmers within the past 40 years is a reflection of this fact. Second, the economic gap between the small farm and the large farm becomes even greater. This growing economic gap has created a new category of farm operators which has become known as small or limited-resource farmers. Accordingly, instead of one group, American agriculture has three major categories of farmers, each with varying educational needs.

Distribution of farms by cash receipts—1975



The Cooperative Extension Service, true to the original mandate set forth in the Smith-Lever Act of 1914, has attempted to provide continuous educational assistance to all three categories of farmers. However, we have found that because of the enormous growth in American agriculture, one major educational program effort is inadequate. To deal effectively with this newly created problem, changes will be needed to develop new educational delivery systems.

There are, according to David E. Brewster, speaking before the ESCS Small Farm Workshop in Washington this year, two schools of thought at the national level regarding ways to deal with the small farm issue. He suggests that the first school maintains that small farmers stand to benefit most from welfare and rural development programs. Essentially, this would place the responsibility for assisting small farmers at the national level within the framework of rural development. The second school holds that basic changes are needed in agriculture itself. He then goes on to say that within ESCS, a consensus seems to be emerging in favor of a middle course. It springs from an awareness of the small farm population's great diversity: some small scale operators are old, some combine farm and nonfarm jobs, while others depend entirely on the farm as their only source of income.

Three-Pronged Approach

Essentially, what has evolved, by necessity in many states, is an Extension educational delivery system where programs are conducted at three different levels. Programs are conducted to assist:

1. Large commercial farmers (gross farm income over $100,000) are provided highly technical information.
2. Commercial farmers (gross farm income between $20,000 and $99,000) are assisted with general informational needs.
3. Small, limited-resource farmers (gross farm income under $20,000) are provided "how to" type information.

This three-pronged approach has created enormous strains on the resources of the Cooperative Extension Service to appropriately staff and conduct programs at all levels. Accordingly, the degree that each state has been able to achieve success toward this objective has varied in direct relation to the resources available. The heavy demand for educational assistance by commercial farmers and the national need for increased food production has dictated the resource allocation decisions by Extension administrators. Thus, over a period of time, Cooperative Extension Service's capabilities to service effectively the needs of limited resource farmers have slowly been eroded away.

While the needs of small, limited-resource farmers were not forgotten, assistance was limited to that which could be made available to all categories of farmers through mass media and public training meetings.

New Definition of 'Family Farm'

The Cooperative Extension Service believed that the original family farm concept is still an important part of the heritage of American agriculture; however, the definition of the family farm has changed. It includes those individuals who are categorized as small, limited-resource farmers who have made a personal choice. They have elected, for better or worse, to farm either as a way of life or as a means to earn a livelihood.

The Texas Agricultural Extension Service has recognized this fact and has accepted the challenge. Normally, I tell the story of the Texas Intensified Farm Planning Program by indicating how it started almost 10 years ago, how we worked, and the results achieved; however today, I propose a different approach.

I would hope that you will accept my word that the Texas Intensified Farm Planning Program was and is successful because I want to discuss some of the basic concepts and principles which we believe contributed to that success. I believe with further delineation and with appropriate adaptation, these same concepts will guide others in program implementation where this target audience represents the major clientele.

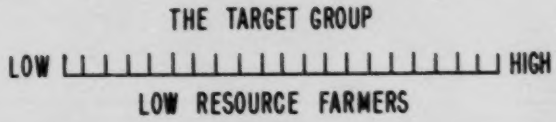
Appropriate adaptation must be made to consider a number of factors such as: cultural patterns, political orientations, and economic situations. Accordingly, I will leave the task of defining the training implications to those of you who have that professional responsibility. The same position has been taken with program planners and program leaders who have visited our state. Essentially, we say, "here is what we are doing, how we are working, and the results we have achieved."

We believe that where the program model is applied, it is important that a basic understanding of the concepts and principles involved be obtained, because this element represents the keys essential to success.

Building an educational delivery system—An effective Extension educational program is one designed to take research and proven information from its source and deliver it to the recipient in a manner in which it can be used and will be adapted to resolve practical everyday living problems. Accordingly, contemporary teaching methods have not proven successful as is evident by the fact that it is a growing population of people left behind in rural American. For this reason, we must reexamine our techniques.

1. There should be at each programming level a working definition of the target audience understood and agreed upon by all concerned.

The target group—National guidelines define limited-resource farmers, using an economic criteria, as those who gross less than $20,000 annually from their farming operations. I would hasten to add that there are many other definitions but to mention them would only confuse the issue. I would, however, suggest that before a meaningful program can be initiated at the national level, we need a definitive definition which can be implemented. At the same time, however, we must recognize that program planners must further define the national definition so that it will service the needs of state, district, county, and community level work. The terms, "small farmers," "marginal farmers," and "family farms" represent different concepts in the minds of different people across this country. One useful procedure is to define limited-resource farmers on a scale.



For example, if you use farm income as the criteria, it can be plotted on a scale to determine where most farmers rank economically in a given area. This exercise should be helpful in delineating the specific target group to be assisted in any area. On the upper end of the scale, we have specific programs to assist the large commercial farmer, those who gross over $100,000 annually. Somewhere in the middle, we have a program to assist a large majority of farmers who are generally classified as commercial farm operators, those with gross farm income between $20,000 and $99,999.

While each category of farmers could benefit, a truly effective educational program must consider the subtle differences that exist between the groups.

It is important that the program planner have an in-depth understanding of these differences. Such an understanding will reduce the likelihood that conventional teaching methods and techniques used with commercial farmers will be applied to this target audience.

For program development purposes, the farmer who falls on the lower one-third of this continuum should be considered as the primary target group. This is essential in communicating the idea that the population to be assisted has different characteristics, needs, and interests. It facilitates an understanding that while traditional Extension educational methods have proven successful with commercial farmers, a somewhat different approach will be required with this clientele group. Also, it is easier to assist those individuals located on the higher end of the scale. To obtain maximum results and recognition, a tendency always exists to move toward the higher end of the scale in selecting program participants.

This assumption was reinforced recently when I had an opportunity to review the recent National study by Brown and Collins from Missouri, entitled, "Large Commercial Family Farms' Informational Needs and Sources." This study was sponsored by the U.S. Department of Agriculture, Science and Education Administration-Extension, to give state and Federal Extension administrators a view of what commercial farmers feel are their informational needs. The study included the approximately 450,000 farmers whose annual gross is $40,000 or more. One of their findings suggests that agribusinessmen express views similar to those of the farmers. Marketing and business management were named as high priority areas for Extension educational programs. They recognize Extension's strong program base, especially in production technology. They would urge Extension to combine its efforts with agribusiness to more efficiently serve the large commercial family farmers. In many instances, this would mean redirecting Extension's effort to less direct contact with farmers and more training of agribusiness and development of educational materials and programs.

They also raise this serious question: "Is Extension reaching young farmers today as effectively as older farmers?" They suggested that there was strong indication that young farmers consider informational sources other than Extension as more important.

They also raise the question, "does this suggest that Extension needs to make program adjustments or face a steadily declining farm audience?" This trend is one excellent example of current contemporary philosophy of Extension teaching.

If one is to implement a successful small farm effort, program developers must anticipate the tendency to use contemporary teaching techniques and build into the program appropriate safeguards to counteract the effect. If this critical step is not achieved at the beginning of the program effort, any further efforts to correct the tendency to use the same teaching techniques will meet increasing resistance by the program implementors. Therefore, it would seem that the primary target audience should be initially defined as those requiring more traditional assistance, especially those on the lower end of the scale.

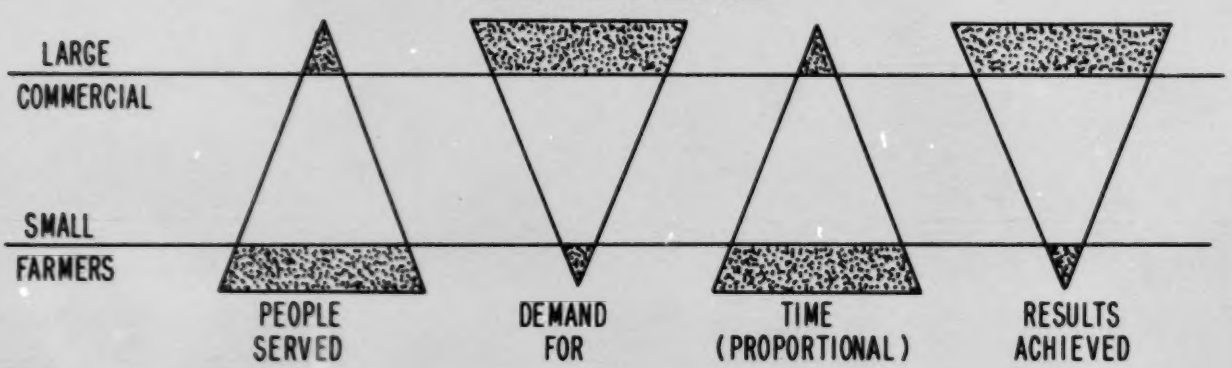
2. Program success is enhanced when there is strong administrative support.

Program dilemmas—The program planner must be aware of some of the comparative differences between an Extension educational effort to assist large commercial and small farm operators. Essentially, this is an administrative decision that must be made at the time program commitments are made to reach this target audience.

This illustration suggests that work with large commercial farmers involves fewer people who place more demands for Extension assistance but require less staff time in proportion to results achieved.

It also suggests that work with small farm operators involves a larger number of people who

Differences in work with commercial and small farms



place very little demand on Extension for assistance but requires greater staff time in proportion to results achieved. Accordingly, if administrators are concerned with results, we will work with commercial farmers. If we are concerned with people, we will work with small farmers.

The administrative decision then must be made in regard to where do we place our emphasis. It is important that this decision be clearly stated, defined, and communicated to all concerned.

Limitations—There are other problems that administrators must deal with such as:

a. Reward system. Our reward system tends to provide greater recognition for staff members who can report outstanding results usually associated with those gained by working with large commercial operators.
b. Professional intention. Our professional staff is highly trained individuals. Throughout their academic careers they have been trained to push toward the outer edge to deal with new concepts and new ideas in an effort to add to the total world of knowledge. Accordingly, it is difficult for many professional staff members to readjust their thinking in terms of the needs of small farm operators. In this overall scheme, the pressing need of small farm operators can generally be met with knowledge located not on the periphery of the world of knowledge but in the center core.
c. Role conflict. Many professionals are faced with the dilemma of resolving the differences between their own personal expectations of success and the expections imposed by the program. As a result, a few professionals cannot reorient themselves to provide effective educational leadership and programming efforts of this type.

3. Program success is enhanced when the philosophical orientation of the staff charged with program implementation reflects an understanding of the educational approach.

Philosophy from the economists' point of view—From the economists' point of view, the overriding philosophy generally can be stated thus:

GET BIG OR GET OUT

From the vantage point of pure economics, this philosophy has certain relevance; however, a second philosophy, one with an educational orientation, might be stated thus:

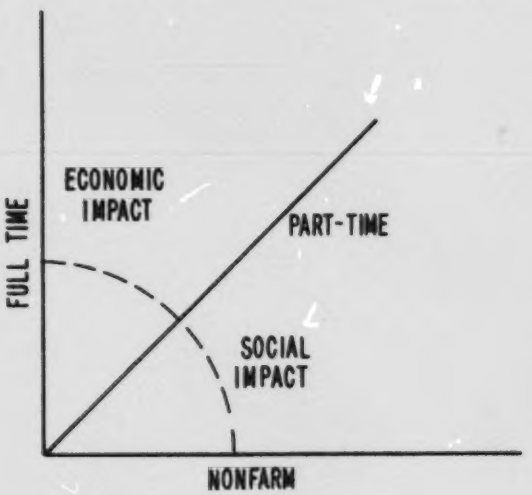
GET BETTER BEFORE BIGGER

A third philosophy might be:

MOBILITY AND GROWTH ARE NOT ATTAINABLE—BUT SUBSTANCE AND/OR MAINTENANCE CAN BE ACHIEVED UNTIL RETIREMENT

I would suggest that an educational approach is more applicable to small farm programs. Accordingly, from the program planners point of view, a program must be developed to deal with the basic skills that all farmers need if they are going to improve their efficiency using the resources they possess.

A philosophical approach—It has been demonstrated in Missouri, Virginia, and other states that an effective educational delivery system can be designed that will accelerate the delivery of educational assistance to small, limited-resource farmers.



Essentially, each state based its programs on the following three basic options available to small farm operators:

1. Upgrade their management skills.
2. Upgrade their skills and seek part-time employment.
3. Discontinue farming.

From the program planners point of view, these options represent administrative decisions that must be defined, delineated and communicated. At the national level the program options represent political decisions. In other words, if we are concerned with the economic impact, then we will be working with the 10%-15% of the farmers who have the capabilities of becoming commercial operators. If the administration is concerned with helping people, then our goal is expanded to include not only the 80% who will be assisted in developing a better quality of life, but also those who have the potential of becoming commercial farmers.

5. Program success is enhanced when related to clearly defined educational objectives which involve teaching decisionmaking and vocational skills.

The heart of the Texas Intensified Farm Planning Program is built on the concept that limited-resource farmers are taught the basic skills needed

to implement technical recommendations. This includes physical skills as well as elementary decision making skills. For an example, it is easy to teach in a group setting the recommended practices for increasing farm production. But, there are many skills needed that are critical to the end result. One must be able to take a soil test, to measure an acre of land, to interpret a soil test, to adjust a piece of machinery, to apply the recommended fertilizer rates, the appropriate depth and location relative to the seed, etc. Any single practice, if not correctly performed, will have an effect on the total yield. All these skills must be mastered and correctly applied in order to achieve the desired results.

We have found that most limited-resource farmers need assistance in making elementary decisions. Decisions regarding when, where, and what are in many cases, critical to the success of an activity. Yet in many cases, small limited resource farmers fail to recognize the importance of these types of decisions.

These two concepts are emoodied in most of the educational objectives for small farm programs that I have studied. Limited-resource farmers need to develop the skills to make decisions regarding the basic questions of when, where, and what should I do to use the resources which I have most effectively. Second, they need to learn the vocational skills that are needed to implement technical recommendations.

6. Program success is enhanced when positive assumptions are related to the characteristics of the target clientele.

The program planner must learn to build a set of appropriate assumptions that will facilitate developing an educational delivery system to reach the target group. Too often, the program planner develops a list of characteristics which describes the target audience and justifies why programs in the past have not been successful. Usually, such a list of characteristics would include:

a. They have limited resources.
b. They lack desire.
c. They lack skills.
d. They are not motivated to improve their situation.
e. They are nonparticipants.

I could list a dozen or more characteristics which all of us have heard. Let's go back and look at some of these. They were originally discussed as being negative attributes of the target audience. Is it possible that these may be positive attributes that might be useful if understood by the program planner?

The individual or family who operates a small farm has adjusted expectations to a level that matches resources. Making this adjustment, it becomes necessary to accept their way of life to reduce personal frustrations. They have personal desires but these desires are realistically based on the resources which they perceive as being available to them. In other words, they have adjusted their expectations to live within their perceived capabilities. The program planner who recognizes this as a positive attribute now has a frame of reference from which to work.

Let us look at the characteristic generally described as "lacking desire." I would suggest that limited-resource farmers do have a desire—they want to improve their overall situation, they are susceptible to exploring alternatives by which their resources can be used to meet increased desires; however, because of past experiences, they need encouragement and support to ensure that radical changes will not result in undue hardships.

7. Program design is facilitated by classification of target clientele by potential.

Essentially, there are three alternatives available for each farm operator. He can upgrade his skills to increase the efficiency of his limited resources, he can sell his skills off-farm, or he can sell his skills off-farm and work part-time on the farm. This would suggest generally two programming implications. One has an economic impact and the second has a social implication. The recently completed large commercial family farm study indicated that only 50% of the farmers in the $40,000 gross farm income category expressed as their major goal to operate a modern farm business that will pay a wage and return on capital compared to any other business. The remaining 50% indicated that their major concern was the quality of life goal. In implementing a small farm program, the professional has the responsibility to assist the farm operator to analyze consequences of each of the alternatives available and arrive at his decision. An educational program is then built to assist that farmer with that decision.

Classification—Generally, limited resource farmers can be classified into three different groups. One useful procedure is to classify them according to the intensity of their agricultural operation. Using this system, limited-resource farmers can be classified as full producers, limited or part producers, or nonproducers. A classification system of this type would provide guidance in packaging educational materials to meet their respective needs. It also will provide guidance in evaluating results obtained from the program.

The following is a suggested classification procedure which could be used.

Full producers—Farmers classified in this group are generally full-time farmers. They have limited resources available for use in the

farming operation; however, age and health are not major limiting factors. Essentially, this group of farmers may have the potential of becoming commercial farm operators.

Part producers—In addition to limited resource farmers, farmers in this category have one or more physical limitation, such as age and health, which prevents them from using all of their resources. Farmers in this group need a different kind of educational assistance. Essentially, assistance should be provided to adapt the operation in keeping with their limitations.

Nonproducers—Individuals or families living on farms or in rural areas not producing crops or livestock fall into this category. Educational programs to assist this group would generally be defined as having social implications. Assistance can be provided to help them to improve their level of living by using other sources of help or service type assistance.

8. Program participants will benefit where individual goals are set which delineate educational assistance needed.

Perhaps the most useful program planning concept to the Extension staff is that of goal determination. It is generally agreed that limited resource farmers will benefit where individual goals are set which delineate the educational assistance needed. In many instances, the participating farmer can clearly identify the goal he would like to achieve. In most cases, however, limited resource farmers have difficulty accomplishing this task. One of the key problems in working with limited resource farm operators is helping them to identify what they want to achieve. The degree that one is able to accomplish goal determination will influence the outcome of the overall educational effort.

Career objectives—Each limited resource farmer should define a career objective as it relates to his personal situation. He may want to:

a. Expand his current farm operation.
b. Increase efficiency without enlarging his current operation.
c. Maintain his current operation but make internal changes.
d. Reduce and consolidate his current operation.
e. Discontinue farming altogether.

Career objectives selected depend on many factors. Age and health of the farmer, availability of resources, size of family, personal ambitions, and availability of off-farm employment opportunities, are some of the considerations which should be taken into account.

Perhaps one of the most effective incentives to work toward in developing any work relationship with small farm operators is the setting of the definable short-range or mini goal. Goals of this type are generally simple in nature, easy to accomplish, and can be completed in a relatively short period of time. In some cases, it may be difficult to set short-range goals. Small farm operators tend to concentrate on identifying goals which will require considerable resources in terms of time and money needed to accomplish these goals. However, this behavior should not be completely discouraged. The practical procedure might be to first establish long-range goals from which short-range goals can be drawn.

Limited resource farmers will respond to assistance when such is related to goals which they have been assisted to clarify in their own minds. Too often, the goals identified by professionals appear unachievable to the small farm operator. For example, one goal might be to enlarge a cow/calf operation. The immediate response is that credit is not available to achieve the goal, thus, it cannot be obtained. However, viewed from another angle there might be many other mini goals that will ultimately result in enlargement of the cow/calf operation. For instance, the farmer may need to improve his fence, improve his pasture, add facilities for water, obtain a better bull; all of these practices, when completed, place the farmer in a better position to increase his cow/calf operation.

It is important that the program planner move small farmers one step at a time. If we can compare educational programs to the educational system, it is suggested that we move him one grade at a time rather than move him from the second grade to the twelfth grade all in one year. Educational programs must be packaged to fit his individual needs, with mini goals outlining the procedure by which you achieve the ultimate objective.

9. Program success is enhanced when specific steps are followed to individualize program planning, implementation, and evaluation.

Generally, all limited resource farmers are trying to make adjustments in their farming operation. However, they generally will have different needs and require different degrees of assistance. Some farmers will need a complete farm plan while others may only require assistance in the form of direct recommendations for a particular enterprise. In each case, each farmer has a specific need for a particular kind of assistance. For this reason, the following working procedure should be internalized by the program implementors when working with limited resource farmers.

Stage 1—Analyze the farmer's situation and determine what resources can be transferred within the operation. Under no circumstances should outside resources be brought in at this time. It is recommended that w[illegible]se existing

resources, making transfers within the operation to work with one enterprise, or at most two, on an intensive basis. Such assistance will develop confidence and will provide the opportunity to teach the basic skills needed to implement technical recommendations.

Stage 2—At this level, bring in additional resources but do not enlarge or expand the farmer's operation. Consideration should be given to using available resources with limited amounts of outside help. Again, work with one enterprise, or at most two, and encourage participation in educational meetings.

Stage 3—After careful analysis of the farmer's potential, consideration can be given to enlarging and expanding his operation with additional resources. This may involve a complete farm plan and complete farm records.

In summary, if we are to make a meaningful impact on this group, it is essential to look at different teaching techniques and program approaches. We need to identify different goals and objectives. Finally, we must recognize that our responsibilities involve helping people—all people—achieve a better quality of life.

Small Farm Programs in the Southern United States

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• This paper presents the preliminary results of an inventory and evaluation of Cooperative Extension programs aimed at small farmers.[1] Since time is limited and we do not want to belabor definitional problems, I will start with a simple definition of a small farmer as one whose annual sales are less than $20,000.

The first objective of the project was to develop a profile of this group based on information available in the 1974 Census of Agriculture. As a point of reference it will be helpful to summarize the findings of this examination.[2] Subsequently, an inventory of small farm programs is presented. This sets the stage for an examination of some evaluative measures of program accomplishments.

A PROFILE OF SMALL FARM OPERATORS

Location and Distribution

Relative to the rest of the nation, small farms, and especially very small farms, are concentrated in the South. According to the 1974 Census of Agriculture, more than 50% of the Nation's farms with annual sales of less than $5,000, and 47% of those with sales of $5,000-$9,999, are within the Southern States. In contrast, the South accounts for only 39% of the farms with annual sales of $10,000-$19,999, and 23% of the farms with sales exceeding $20,000.

Table 1 presents the number and proportion of southern farms in each sales class in 1974, together with the percentage changes in numbers of farms between 1969 and 1974. In the region, historic trends toward fewer, larger farms have continued into the 1970's. All states experienceed a decline in total farm numbers. As anticipated, the greatest losses were of farms having relatively small agricultural sales. Conversely, the region has experienced rapid growth in the total number of large farms, especially those with annual sales exceeding $40,000. Nevertheless, in 1974 over three-quarters of southern farmers had sales of less than $20,000. If past trends continue, these farm operators will be subject to the same pressures that have forced thousands of similar farms into expansion or extinction.

Resources and Production

The proportions of the total value of farmland, buildings, machinery, and equipment controlled by farms in each sales class are also shown in table 1, together with the distribution of market value of agricultural production. The latter figures present a striking contrast to the distribution of farm numbers and resource control. Farms in the smallest category accounted for less than 2% of the South's total agricultural production. Yet, these farms owned more than 13% of the region's market value of farmland, buildings, equipment, and machinery. Similarly, farms with sales of $2,500-$20,000 accounted for only 13% of production but controlled more than 25% of the value of land, buildings, equipment, and machinery assets.

There is some reason to believe that the Census of Agriculture overestimates small farmers' control of productive resources by including among farm resources buildings, cars, and trucks serving primarily personal objectives. Similarly, since many small farm operators work off their farms, available labor may be substantially less than the reported number of operators would imply. Differences in the quality of land and types of enterprises found on large versus small farms also partly account for the latters' disproportionately low value of production. Finally, there are indications that small farmers

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[1]Research project entitled "An Inventory and Evaluation of Cooperative Extension Programs in the South Aimed at Small and Part-Time Farmers," funded by Science and Education Administration, U.S. Department of Agriculture. States included in the study are Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, Missouri, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, and Virginia.

[2]For a more detailed analysis see "Small Farms, An Analysis of the 1974 Census of Agriculture to Determine the Location, Resources, Production and Socio-Economic Characteristics of the Operators of Farms With Annual Gross Farm Sales of Less Than $20,000," Staff Papers SP-77-20, SP-1-78, SP-3-78 thru SP-14-78 (prepared for each of the fourteen Southern States), Department of Agricultural Economics, Virginia Polytechnic Institute and State University, Blacksburg, Virginia.

Table 1. The number of farms, value of land, buildings, machinery and equipment of farms, and market value of agricultural products sold by annual sales class, the Southern Federal Extension Region and Missouri, 1974

	Distribution of farms by annual sales class						
	All farms[a]	Less than $2,500	$2,500-$4,999	$5,000-$9,999	$10,000-$19,999	$20,000-$39,999	$40,000 or more
Distribution of farms							
Total number of farms, 1974	1,010,228	384,048	159,235	138,279	112,586	86,804	128,785
Percent of total farms, 1974	100.0	38.0	15.8	13.7	11.1	8.6	12.7
Percent change, 1969-1974	-19.6[b]	-35.9[c]	-17.4	-5.9	+0.2	+81.8	
Resources and production							
Percent of value of land and buildings	100.0	13.9	9.4	9.5	10.8	12.5	42.9
Percent of market value of machinery and equipment	100.0	16.3	8.2	8.9	10.6	12.6	42.9
Percent of market value of agricultural products sold	100.0	1.7	2.2	4.0	6.4	9.9	75.3

[a]Includes " Abnormal Farms" not classified by value of sales.
[b]Of the decrease, 32.9% is due to the 1969 Census change in the definition of a farm which eliminated farms with sales of less than $1000 from the Census count.
[c]Of the decrease. 37.6% is due to the 1969 to 1974 Census change in the definition of a farm.

Source: United States Bureau of the Census. *1974 Census of Agriculture*, State and County Data, Washington, D.C.: U.S. Government Printing Office, 1977.

make less intensive use of their available resources than large farmers. For example, on the region's smallest farms more than 70% of available cropland is used for pasture, while on farms with sales exceeding $40,000 over three-fourths is used for harvested crops.

Operator Socioeconomic Characteristics

A diverse group of people operate small southern farms. Most are full owners of their land; less than 10% are tenants. About a quarter are less than 45 years of age; another 50% are between 46 and 65 years of age.

Almost 60% of the operators of the region's smallest farms (annual sales of less than $2,500) work off their farms more than 150 days per year. As sales class increases, the proportion of operators working off the farm more than 150 days decreases (to 33% of the operators of farms with sales of $10,000-$19,999). From the Census it can be estimated that 48% of all small farmers (380,000) worked off their farms less than 150 days in 1974. Many of these were retired people: there were 192,000 small farmers age 65 years or older in 1974.

The Census of Agriculture also measured off-farm family income. Unfortunately, the usefulness of the data is limited by the fact that the information was not collected from operators of farms with sales of less than $2,500, and by the low response rate (averaging less than 60%) among farmers to whom the question was addressed. But the data do provide some insight into the income situation of families on small farms. If we assume that nonrespondents had the same distribution of off-farm income as respondents, it can be estimated that in 1974, of the 410,000 southern farmers with sales of $2,500-$19,999 there were 136,236 (33.2%) with off-farm incomes of less than $5,000.

The Census data indicate that the vast majority of small farmers (94.5%) are white. The data also show that minority farmers are disproportionately likely to have small operations. Of the 46,966 minority farm operators in the South in 1974, more than 55% operated farms with sales of less than $2,500, as compared to 38% of whites. Only 7.5% of minority operators had sales greater than $20,000, compared to 21.5% of white operators. Thus it is not surprising that those concerned with minority farmers are especially interested in small farms. But it seems that issues relative to small farms should by no means be of concern only to those interested in the status of minority farmers.

Implications From Census of Agriculture

From a descriptive analysis of the Census it appears that at the aggregate level there is some potential for increasing production on small farms but that resource availability on these farm limits the magnitude of potential increases. Many of the people referred to as small farmers by the simple definition based on farm sales have adequate total family incomes. However, there is also a significant proportion for whom total income is low, and farm income relatively important.

A review of farm management studies and surveys of small farmers that have recently been conducted in Kentucky, Missouri, Tennessee, Texas, and Virginia leads to similar conclusions.[3] These points should be kept in mind while examining extension small farm programs.

INVENTORY OF SMALL FARM PROGRAMS

Scope of the Study

The second research objective was to inventory the range of extension programs directed toward small-farm operators. At first, no single definition of either a "small farmer" or a "program" was imposed. Rather, extension administrators in each state were asked how they defined these terms. Respondents were then asked to indicate "specific policies or directives concerning work with small farm operators in the course of regular activities (i.e., extension work designed for any farmer without necessarily considering farm size)" and to identify the programs they felt were "specifically designed for small farmers."

Respondents in 10 of the 14 states indicated that in conducting regular extension work they have specific objectives concerning small farms. For example, in Florida "all personnel are directed to work with small farmers as well as large farmers." Each parish (county) Extension Council in Louisiana has a committee for small farms and the parish extension staff includes relevant goals in its annual work plan. Administrators in Arkansas indicated that "a lot of traditional work deals with small farm operators" and in Virginia and Kentucky, as well as other states, there are geographic areas where "practically all work is with small farmers."

Together with regular extension activities, two types of special programs were identified within the region. First, there are programs using paraprofessionals (generally individuals with farm experience, modest education, and personal familiarity with small farmers in a specific county or community) to provide intensive assistance to selected farmers. The assumption underlying these programs is that paraprofessionals can communicate with farmers in their peer group on a one-to-one basis, and thereby effectively help them improve their farming operations.

The second type of program gives professional extension workers specific responsibiity for work with small farmers. The assumption underlying these programs is that professional training, knowledge, and skills can successfully be used to assist small farmers if the agent is given specific responsibiity, and appropriate support, for work in this area. As with the paraprofessional programs, intensive contact with farmers is considered fundamental.

This study focuses on the programs, identified by personnel within each state, in which paraprofessionals or professionals make special efforts to provide assistance to selected small farm operators. In determining which programs to include, two guiding criteria were considered: the degree to which the activity is viewed as a special effort directed at small farmers and, more importantly, the intensity and continuity of contact between the field staff and individual participants. The programs selected for study do not encompass all extension work with small farmers. However, they provide measurable commitment of extension resources in this area, and, therefore, an opportunity to gain insight regarding opportunities to assist these operators. Often an objective of these programs is to "graduate" farmers into the regular extension program.

In the 14 states surveyed, 23 special programs were selected for study. More than 225 people are employed for direct field work with small-farm operators in 196 counties. Of the programs, 16 employ paraprofessionals, 6 use professional agents, and 1 uses both types of field staff. There is usually one or more paraprofessionals per county; in all there are 178 paraprofessionals working in 130 counties. However, professional agents often have responsibility in more than one county. In the Southern region there are 54 professional agents working primarily with small farmers in 66 counties.

Data Collection

To acquire information about the programs, interviews were conducted with administrators and program leaders in all 14 states. Twenty-three administrators and 20 program leaders were selected on the basis of the extent of their responsibility and involvement in small farm programs within their state, representing extension components at both 1862 and 1890 land-grant colleges and universities.

With the cooperation of a liaison representative in each state, questionnaires were sent to all county agents supervising small farm programs. One hundred and thirteen responses were received. Questionnaires were also completed by 187 of the extension field staff working directly with small farmers. The field workers were asked to complete a form on each individual farmer whom they contacted on a regular basis, and data was collected on a total of 4,543 farmers who participated in small farm programs in the South during 1977.

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[3]For an example see: Steward, Fred J., Harry Holt and Eldon Smith. *The Potential for Increasing Net Incomes on Limited Resource Farms in Eastern Kentucky*, Research Report 24, Department of Agricultural Economics, University of Kentucky: Lexington Kentucky, May 1976

Program Administration and Leadership

Administrative supervision of small farm program field staff usually occurs through the same channels as for other extension county programs. Paraprofessionals work under the supervision of an extension agent, who is expected to spend 10%-20% of his time on the small farm program. Professional agents with small farm responsibilities coordinate with the extension unit chairman of the counties in which they work, and may report directly to them or to the district staff.

Program subject leadership also often uses regular extension district and county channels. However, it is generally believed that this work requires subject materials and educational techniques quite unlike work in commercial agriculture. As a consequence, in some cases extension specialists at the state level are designated as program leaders, and play a substantial role in implementation of the small farm program.

In a few states the extension component at either the 1862 and 1890 institution is solely responsible for program administration and leadership at the state level. However, most programs are administered jointly with state program leadership coming from both schools, or predominantly from the 1890 extension component. With two institutions involved, administration of the small farm programs is often complex.

Program Objectives

During the interviews, administrators and state program leaders were asked to define the goals of their programs. Generally broad objectives such as improving low family incomes or increasing the level of acquired skills of the farm operators were cited. These respondents, as well as the extension agents supervising the programs in each county, were then asked to rank the four most important methods through which these goals are to be achieved. Improving farmers' production practices is clearly perceived to be the primary method. Improving gardening and other food production for home use is also considered an important function of most small farm programs, regardless of location or institutional affiliation. Five more objectives (changing enterprise combinations, increasing participation in agricultural programs, improving product quality and market availability, and increasing enterprise size) are most often of secondary importance. Three possible goals (improving family housing, building new facilities and increasing participation in social programs) were ranked by only a few respondents. Generally, objectives cited by administrators are consistent with those cited by state program leaders and county supervisors when comparing the groups in the aggregate, as well as within each state.

Perceived Target Audience

Since there's not enough money to establish programs in all counties, the states have had to begin their small farm programs in pilot areas. Criteria used by administrators and state program leaders to select counties fall into three categories—location, characteristics of the farm population within the county, and attributes of the existing extension staff. Of the criteria, the interest and attitude of the county staff appears to be the single most important criterion considered. One administrator summarized a general attitude by stating that the opportunity to develop a small farm program exists in any county but that the key factor is "the drive and determination of the county agent."

Once counties are selected, most administrators and program leaders define the target audience as those farmers having gross annual agricultural sales of $20,000 or less. However, respondents from eight states indicated that they place emphasis on farmers with sales below $10,000. One administrator explained that the lower sales guideline was established because of a tendency of district and county staff to move the figure upward. Most programs service both full and part-time farmers, however, respondents in four states reported a program orientation toward farmers with limited off-farm income.

Half of the respondents reported that their programs try to reach an audience that is not involved in other extension activities and a few respondents indicated their target audience is primarily minority farm operators. Several administrators and program leaders mentioned that their target audience would be characterized by low levels of educational attainment. Some respondents indicated that their programs were developed to address the needs of farms with limited resources. But some potential for increased productivity is often emphasized in the selection of participants.

Overall, the data suggest that most administrators and program leaders use flexible eligibility criteria. Generally, the target audience to which they perceive their program being directed is characterized by income, farm resources, and educational levels relatively lower than those of farmers served by other extension programs.

Characteristics of Participants

The characteristics of farmers who participated in small farm programs in 1977 are shown in figure 1. In terms of socioeconomic status, participating farmers typically have low incomes and moderate educational levels. Annual off-farm income amounts to less than $5,000 for 62% of the farmers, yet 70% are estimated to make less than $5,000 of farm sales. Only 22% of the farmers hold full time, off-farm jobs. Educationally, about 37% have completed less than eight years of schooling. Six percent

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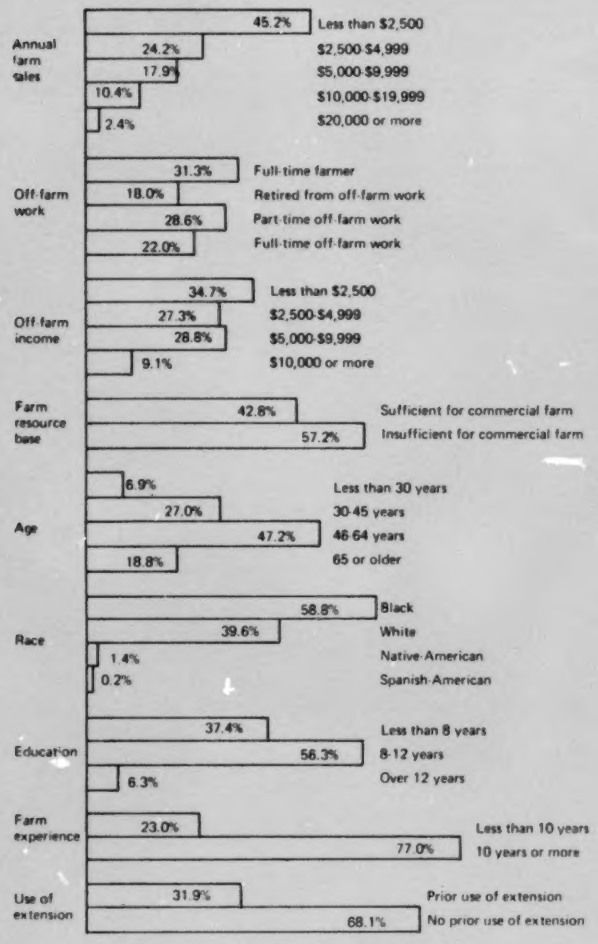

Figure 1. Selected characteristics of farmers participating in small farm programs

have attended college, and the remaining farmers have attained an educational level of between 8 and 12 years. Less than a third of the participants had been involved in extension activities before their involvement in the small farm program.

The size of farms held by participants averages 105 acres, with 50% of the farmers having under 60 acres. Interestingly, despite the relatively limited acreage and farm sales of most participants, program field staff feels that 42.8% have enough resources to earn a living by full time, commercial farming.

Beef was identified as the main livestock enterprise on 34% of the participants' farms, while hog production is the primary livestock enterprise for over 30% of the farmers. Dairy, sheep, and poultry production were reported on less than 10% of the farms. Corn or soybeans and vegetables are each the predominant crop enterprises on about 35% of the farms, while tobacco is the main crop enterprise on 13% of the farms.

Enterprise size is small in most cases. Dairy and beef herds generally have less than 30 cows and on the average there are less than 20 sows on farms with hogs. Field crop enterprises usually cover less than 50 acres, while farms producing vegetables average 6 acres in cultivation.

The characteristics of participants indicate that small farm programs have generally involved the intended target audience. On the basis of farm sales, off-farm employment and income, age, education, and prior use of extension, most participants exhibit the characteristics emphasized by program leadership. The racial distribution of participants indicates a greater concentration of minority farm operators than either the Census of Agriculture or the target audience selection criteria would lead one to expect.

Identification and involvement of individuals characteristic of the intended target audience is a necessary first step toward achievement of program goals. In fact it can be considered one measure of successful program implementation. On this measure, extension small farm programs appear to be doing quite well. Before passing too lightly on the value of this accomplishment, one should consider that programs can fail simply because of inability to identify or maintain contact with the people for whom they are intended.

PROGRAM EVALUATION

Types of Evaluation

This study provides two avenues for evaluation of small farm program accomplishments. First, measures of program effort, and of the assessment of overall success by program staff, can be examined. Second, information gathered concerning the characteristics of participants, program inputs, and progress of individual farmers can be used to statistically analyze the factors influencing the degree of change achieved by each participant.

Program Efforts and Staff Assessment of Success

Table 2 illustrates the types of assistance given to individual farmers by program staff. Soil testing is undoubtedly the most frequently reported activity, followed by assistance with gardening, and crop and livestock production practices. Relatively few farmers have been helped to increase enterprise size, add new farm enterprises, or eliminate unprofitable ones. This suggests that field staffs do not emphasize initiating abrupt changes in their participants' farming preferences or scale of operation. It would appear, instead, that most assistance is designed to stimulate and improve production and management of existing enterprises.

The opinions of county agents supervising small farm programs regarding the success levels of their

Table 2. Assistance provided to participants, and evaluation of program effectiveness by small farm program county supervisors

		Proportion of participants receiving assistance	Proportion of supervisors ranking progress highly
Improve gardening practices		42.6	65.1
	soil tests	67.7	
	crop production	47.7	
Improve production practices	livestock production	43.5	51.4
	farm records	28.7	
	farm plans	24.3	
Improve product quality		28.9	43.1
Increase participation in agricultural programs	ASCS, SCS, FmHA, etc.	27.9	
	Extension programs	21.4	40.2
Eliminate unprofitable enterprises or add new ones	eliminate enterprises	13.5	
	add new enterprises	12.6	28.5
Increase enterprise size		13.8	27.8
Improve available markets		17.3	26.8
Improve family housing		18.5	20.2
Improve or build facilities		16.1	18.9
Increase participation in social programs		5.5	11.0

Source: Survey of Small Farm Program county supervisors and field staff, the Southern Federal Extension Region and Missouri, December 1977-April 1978.

respective programs in each assistance area are also shown in table 2. Generally, these responses are consistent with the extent to which field staffs provide assistance to individual farmers. Most respondents (65.1%) feel that their programs are highly effective in helping farmers improve their gardening and production of other foods for home use. Improvement of farmers' production practices is also given a high success rating by over half of the supervisors (51.4%). Two more objectives, improvement of the quality of marketable products and increase in farmers' participation in agricultural programs, are given a high level of success by 43.1% and 40.2% of the supervisors, respectively.

The assistance being extended to farmers and the supervisors' assessment of success in each area are generally congruent with the ranking of objectives cited previously. Objectives ranked highly correspond to areas in which more assistance is being provided, and a higher proportion of county supervisors indicate relative success. The data suggest, however, that there is less activity relative to adding profitable enterprises, increasing enterprise size, and improving available markets than desired by the small farm program leadership.

Field staffs were also asked to rank the farmers they work with regularly on the basis of their level of interest in the program, and to indicate the degree of improvement achieved by each farmer during the course of the participation. Field staff ratings of participants' interest is high. About 40% of the farmers are perceived as "good," 34% as "very good," and 10% as "excellent" in terms of their interest. As indicated in table 3, the field staff is not as optimistic in evaluating improvements made by the farmers. Regarding production practices, 3% of the farmers are judged to have made no improvement, 45% to have improved "only a little," 42% to have improved "quite a lot," and 4% to have made extensive gains. Improvement in management of available land, buildings, and labor during program participation is evaluated similarly. Over 6% of the farmers are considered to have made no improvement, 44% to have progressed "a little," another 42% to have improved "quite a lot," and 4% to have improved extensively.

Concerning changes in farmers' yearly agricultural sales since they began participation, field staff reports 12% of the farmers to have increased their sales more than $2,000 annually. An increase of between $1,000 and $2,000 is estimated for about 29% of the farmers, and another 30% are estimated to have made gains under $1,000. Over a quarter of the farmers are perceived as making no gain in sales. Field staff overwhelmingly attributed sales increases to improvement of production practices

Table 3. Improvement in production and management practices and estimated change in annual farm sales achieved by participants in small farm programs

	Proportion of participants	
Level of improvement	Improvement in production practices	Improvement in management of resources
None	3	6
A little improvement	45	44
A lot of improvement	42	42
Tremendous Improvement	4	4

Estimated change in annual sales	Proportion of participants
Decrease or about the same	28
Increase under $1,000	31
Increase $1,000-$2,000	29
More than $2,000 increase	12

Source: Survey of Small Farm Program field staff, the Southern Federal Extension Region and Missouri, December 1977-April 1978.

(64.6% of the farms). Other factors considered to enhance agricultural sales are increases in the size of existing enterprises (9.9%) and higher market prices (9.1%).

Analysis of Factors Influencing Program Success

The second avenue the data provide for evaluation purposes is examination of the factors that influence the degree of improvement achieved by individual farmers. As a starting point it is hypothesized that the degree of improvement (in production, management, and farm sales) by each farmer is dependent on:

1. Socioeconomic characteristics of the farm operator.
2. Characteristics of the principal farm enterprise(s) (e.g., resources, scale, enterprise type).
3. Type of assistance provided by the small farm program.
4. Extent, length, and intensity of the farmers' contact with the program.
5. Socioeconomic characteristics of the field staff;
6. Training of the field staff.
7. Supervision and assistance received by the field staff.
8. Program attributes that may influence the field staff's effectiveness (e.g., availability of demonstration money, reporting system).

There are a number of variables within each of these blocks for which a measure is available from the study. Regression analysis can be used to examine the manner in which the variables interact to affect the improvements achieved by individual participants in the programs. The relative importance of each block of variables can be examined in a similar manner.

There are a number of problems inherent in using statistical models with the array of sociological and economic data this study provides. The statistical analysis is not complete, and findings presented at this time may have to be modified in light of further evidence. However, we are far enough along that it is possible to provide some idea of what the analysis suggests relative to many of the above mentioned topics.

Examination of the data indicates that farmers' improvement of production practices are relatively highly correlated with farmers' improvement in resource management. Improvements in these areas are not highly correlated with increases in farm sales. Thus, farmers often make different rates of progress on the former measures as compared to the latter.

Changes in production practices, management, and sales are each positively affected by the extent of participation in the program as measured by frequency of contact, number and types of assistance received, and participation in meetings, tours, and demonstrations. Interest is highly associated with change, raising the question of how to stimulate interest among potential participants. Changes in farmers' practices and sales are positively related to the length of their participation. However, there is also slight evidence to indicate that after 4 years, improvement by farmers begins to level off. Given the limited number of farmers contacted intensively by each staff person, this would suggest that emphasis on graduation of participants deserves serious consideration.

Although some of the evidence indicates that operators of the smallest farms are making the greatest changes in production practices and management, other socioeconomic factors appear to have little effect on improvements in these areas. Increases in farm sales seem to be more highly influenced by demographic factors. Age appears to be negatively related to changes in sales, while higher off-farm income, education, and initial farm sales are positively associated with the extent to which farm sales increase. This discrepancy in the effect of farm and personal resources on the different measures of improvement raises interesting questions about program goals and target audience. If a target audience with limited resources is selected, one may anticipate changes in production practices and management, but less measurable economic change, than if farmers with greater resources are the target group. Whom should small farm programs attempt to reach and how should the results be evaluated? At issue is the trade-off between reaching those who "need help the most," in absolute terms, and showing results which justify program endeavors.

The analysis also suggests that characteristics of the field staff affect the degree of improvement in farmers' practices, management, and sales. Farm experience, formal education, and length of county residence of the staff are positively related to participants' improvements. Generally, these findings are congruent with the emphasis administrators and program leaders place on each criterion in the staff selection process. Hence, the criteria in use seem to be well founded.

The extent to which field staff training or program participation by supervisory staff enhances farmers' progress is uncertain. The issue is complicated by evidence that both above and below average field staff receive relatively more training and professional assistance than staff of average performance. In the aggregate it is difficult to measure the relationship of these factors to improvement achieved by participating farmers. However, several measures suggest that field staff

training and supervision are important determinants of program accomplishment. For example, more than 40% of the field staff believe they would benefit from receiving more supervision than they did in 1977. On average, farmer-participants of these staff members make fewer changes than farmer-participants of field staff who feel their supervision is adequate. This suggests that although absolute measures of training days or professional help are not necessarily related to increased program effectiveness, attention should be paid to the felt needs of field staff in these areas. Involvement of program leadership and flexibility in responding to individual situations would appear to enhance program success.

During the interviews with administrators and state program leaders, many respondents indicated that the level of interest of the county agent supervising the program, and the attitudes of other extension staff at the county, district, and state level play a critical role in determining program success. Our analysis to date suggests that variation in the interest expressed by county supervisors and the degree of helpfulness of all professionals providing program assistance are not as strongly associated with improvements made by farmers as was suggested in the interviews. This may indicate, as several respondents suggested, that small farm programs have established their legitimacy, and that once the program is operational for several years, the interest and participation of supervisory staff contributes less than during initiation of the program.

Conclusion

The foregoing is as far as we are prepared to go based on our study to date. Given our initial hypothesis, one can see that there are a number of variables left to examine. In concluding this preliminary report perhaps one comment is appropriate.

Although we have no numeric measure of the assessment of small farm programs by administrators and state program leaders, the tone of the interviews suggests that respondents are moderately satisfied with program implementation and achievement. Commenting on the need for an evaluative study, one administrator remarked that he felt some policymakers had already made an evaluation, and the green light given for further program development. However, we believe that at this point the light has only turned yellow—proceed with caution—in the opinion of many extension administrators and program leaders. Many respondents indicated they have counties which desire the program if additional funds become available, and moderate expansion of the programs can be expected. However, there is almost no indication that substantial local or state resources will become available for this purpose. At the Federal level, the issue is still unresolved. In this context we believe that the present inventory and evaluation of small farm programs will be useful: both in stimulating formation of policy concerning the programs, and in guiding implementation in those areas in which expansion does occur.

Serving Farmers Through General Ongoing Extension Programs

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• The Extension programs which serve small farmers might be generally classified into two types. First, those specifically labeled as small farmer programs which directly seek out small farmers with which to work. These would include such programs as the widely discussed paraprofessional projects in Texas and Missouri. Second, the regular ongoing Extension programs provide much information and assistance to small farmers as well as to larger farmers and other audiences. This is particularly true in the Southern region where about three-fourths of the farmers have less than $20,000 gross farm sales.

For the U.S. as a whole, almost 70% (69.3%) had gross farm sales of $20,000 or less in 1977 according to the USDA publication "Farm Income Statistics" of July 1978. This same publication provides some interesting income data on this group of farmers. They have an average income of almost $16,000 when net farm income is added to their off-farm income. As a group, off-farm income greatly exceeds net farm income. The farms with sales of $5,000 or less have a total income of more than $16,000. They make up more than two-thirds of the under $20,000 gross sales group. The off-farm income for this under $5,000 group is almost 10 times greater than their net farm income. For the $5,000 to $20,000 gross sales group, off-farm income is also several times their net farm income.

This data raises several questions. How many of these under $20,000 gross sales farms have spendable family incomes below the poverty level (or at some level which society deems highly unacceptable)? I would estimate it to be between 10% and 15%.

Since a large share of these farms have most all of their income from off-farm sources, how much agricultural production information do they need or want? What are their goals and attitudes toward maximizing income from their farming operations? It is often hypothesized that most small farmers have strong nonincome goals in regard to their farm operations. For these situations, management and Extension assistance can be provided to help achieve goal optimization, but the conditions for working with this farmer are somewhat different than where there is a high emphasis on increasing net farm income.

For that segment of the small farmers who do have a high degree of interest in increasing net farm income, the ongoing regular Extension programs (those without a small farm label) can provide much assistance. In this short session on our workshop, we thought it might be useful to review some examples of assistance provided to small farmers through our regular ongoing Extension programs.

Another note is relevant to the definition of a small farm. I believe that most farm management specialists would tend to consider the farms in the $20,000 to $40,000 gross sales range also as small farms. This is because the enterprises on these farms will usually be considered as being small in scale or size. The term small is used in the context of not being able to take advantage of many cost of production efficiencies and often marketing efficiencies.

If all farms below $40,000 gross sales are considered to be small, then over 80% of all U.S. farms are small. On this basis, many Southern region counties would have over 90% small farms and some counties over 95% according to the 1974 Census of Agriculture. Thus in many counties, Extension programs are almost totally serving small farmers although the term small farm may not be used in planning and conducting the Extension programs.

Trigg County, Kentucky, Small Farmer Program

JOHN FOURQUREAN
County Extension Agent—Agriculture
University of Kentucky

• The 1974 Agricultural Census shows that in Trigg County 515 of the 644 farms have gross income of less than $20,000. The 1969 census reported 646 out of 718 farms with less than $20,000. Trigg County agriculture is made up basically of small farm operations. Soil and topography are generally more favorable for a rotational farming program. No-till has helped to intensify land use and has enabled continuous use of some fields.

With this high percentage of small farmers, you can easily see that most Extension work and efforts are with small farmers. Some small farmers can easily see applications of technology to their operations while others need close continuous assistance in making changes. Methods of working with small farmers don't differ greatly from those for larger operations; however, they move on a smaller scale and some may react a little slower. Limited resources tend to make each situation unique so that the type of response varies from farm to farm.

The farm visit is probably the most important method of working with small farmers as these operators often don't come to you—you go to them. One-on-one type of educational work seems to be most effective with this segment of the farm audience.

Demonstrations and other methods of getting across new ideas and techniques sometimes move more slowly than desired. Formal showing of results through a tour doesn't necessarily work, especially in getting those who really need to see it to come and participate. One effective way we have experienced involves the use of some of our Extension leaders, (those who are most forward), to help by showing individuals living close to them or those they know real well the benefits of recommended technology. The TVA land-grant college program greatly assists in this effort.

Not many people will attend a meeting anymore unless it is something of necessity like the Pesticide Certification and even then some do not. Even when you go into the community to a country church or a lodge hall many will not attend.

Mass media methods are used primarily to generate interest. Small amounts of information can be presented in anticipation that the farmer will seek more details through phone calls, office visits, scheduled newspapers or direct mailings. Spot radio announcements or special news releases in addition to regular radio and newspaper programs are very effective in informing farmers on such timely topics as scouting reports on insects and diseases, timely tips in harvest, and care after harvest.

Probably as a result of farm visits, spot radio announcements and news releases, the number of telephone calls and office visits have increased in our county. Usually, there is a direct relationship between numbers of farm visits, information given over radio and in newspapers, and contacts with our office. Some farmers are using the telephone more for faster and more economical means of getting results.

In the past 3 years, a delegation of small farmers from Trigg County has attended the Valley Association of Test Demonstration Farm Families' annual meeting and special meetings held at Muscle Shoals, Alabama, for new demonstrators. Several small farmers have attended out-of-county meetings. This could be a new way of working with old ideas but in a traveling society, this strikes their fancy.

One of our major undertakings has been the formation of a County Veterinary Service. It started in 1975, a doctor came in 1977, and in 1978 a $55,000 facility was completed for the operations. Both small and large farm investors made it possible. Over 75 farmers participated with $100 to $1,000 investments. The committee got a loan of $15,000 to complete the project.

Small farmers must be given much credit for the veterinary service, they built the clinic and 90% of the veterinary business comes from small farm people and small animal owners. Having a local vet saves farmers about $25 per visit over calling a vet in from another county. In some cases having local service determines whether or not the vet gets called or the animal just suffers or dies.

In home economics, work with small farm families is through the homemakers clubs, the Expanded Food and Nutrition Program and the TVA Demonstration Garden program. Two program assistants work annually with approximately 40 families each. They are required to graduate some each year by moving them up through progressive educational levels. There were 24 families involved in the garden program this year.

4-H work is a part of the educational program and is provided through the school system. Children from all families have an opportunity to participate in 4-H. One particular project popular with rural members is the 4-H Dark Fired Tobacco Project. About 12 members participate in the annual show and sale held in the area. Total involvement for the past few years is about 400. Grade enrollment (1-12) is 2,180.

Extension Service Work With Small Farmers in Cullman County, Alabama

BOB GENE SPEARS
County Agent-Coordinator
Auburn University

• First, a few basic facts about our county. We have an estimated population of 59,300 and are located in northern Alabama 50 miles north of Birmingham. We have a highly diversified agriculture, including 11 enterprises that usually gross more than $1 million: broilers—by far our biggest—eggs, cattle, vegetables, swine, dairying, soybeans, nursery crops, cotton, corn, and sweet potatoes.

Our 1977 gross farm income was $126 million which—thanks to poultry—was the largest in Alabama. Broilers and eggs accounted for more than $100 million of that total.

The 1974 Agricultural Census showed that we had 2,779 farms with an average size of 84 acres, and that almost 69% of our farms had annual sales of less than $20,000. About 75% of these small farms have other sources of income, including income provided by wives who work off the farm. And while it would seem at first glance that we may not be typical of the State of Alabama as a whole—and we're not in terms of commodities produced, farm size, and other criteria—we do have a smaller percentage of small farms than the State as a whole. The April 1978 study by David Orden and others showed that more than 79% of Alabama farms had annual sales of $20,000 or less in 1974.[1]

I would contend, however, that we are a fairly typical Alabama county in terms of how the county Extension staff serves small farmers. That, in short, is this: Regular, ongoing programs of the Extension Service are intended for and do serve the needs of the small farmer. He is taking advantage of them in large numbers. Over the past year, for example, we had 5,089 Cullman County farmers at 55 commodity group meetings. Sixty-two percent of those farmers were in the $20,000 or less annual sales category. A little figuring I did the other day showed that 75% of my time is devoted to serving the small farmer. I would imagine that the statewide percentage of agents with agriculture responsibilities would be about the same, according to information from our Extension agricultural economists at Auburn.

In Cullman County, at least 75% of the committees involved in commodity program planning is made up of small farmers. We know that production problems of small and large farmers are very similar. The larger farmers generally use larger and more equipment, but the basic problems and the decision making processes are the same.

Marketing seems to be the small farmer's biggest problem and quite a bit of what we do in Cullman County is aimed at helping to solve that problem.

Feeder Pig Association

We have one of the largest and most modern feeder pig marketing facilities in Alabama. During the past 12 months more than 30,000 pigs went through this facility. Small farmers helped us plan and develop this market, and they are, of course, the primary users.

Up until July 1978 one sale a month was held. However, since July 1978 sales are held every 3 weeks and it appears that starting sometime in 1979 we will be holding a sale every two weeks because of the increase in numbers of pigs being sold. Our original capacity was 2,700 pigs. The barn size was increased in 1977 to handle 3,500 head. A minimum of 1,200 head per sale is required to break even.

Organization of the association began in 1972, when a survey type letter was mailed to all known swine producers in the county. This number was around 300. We had 97 surveys returned, which we determined excellent. Of those returned, the producers indicated they were interested in a feeder pig market and they would support the market. We (Extension) measured the response in sow numbers thinking that there should be a minimum of 1,500 sows to support a sale facility. However, 1,723 sows were reported at that time.

After the survey was analyzed, key pork producers, agribusiness, and other leaders were selected to go over the survey and determine if we should pursue the sale barn.

A meeting of all swine producers was called to get their input and feeling as to whether they wanted and would support the project. Enthusiasm was high, and a board of advisors was selected at this meeting. About 100 people attended.

The advisors, along with the county agents, met many times in making plans with Auburn Extension marketing specialists and economists.

The producers agreed to form a cooperative and purchase certificates of indebtedness. A total of $11,500 in certificates was sold to swine producers. No interest was guaranteed on these certificates.

The County Commission bought 10 acres of land and deeded it to the feeder pig association as a location for a sale barn.

[1]David Orden, Ann Stafford, Alpha Trivette, Ben Rip[illegible], Dennis Smith and Robert Jensen, "Small Farms In Alabama," Department of Agricultural Economics, Virginia Polytechnic Institute and State University, Blacksburg, Va., April 1978.

The Alabama State Marketing Authority loaned the association money necessary to build the sale barn ($81,789). The money is to be paid back to the state in annual payments over a 20-year period, interest free. At the end of the payment period the barn will be deeded back to the producers.

A total of $1,838.24 was paid back to the producers in 1976 as a patronage dividend. This is expected to happen again in 1978.

At the beginning all pigs were consigned to the sale through the county agent's office and most of the management and inspection was done by the Extension Service. However, the Extension Service is in the process of phasing out with less involvement. The association has its own inspectors, managers, bookkeeper, etc. Extension has continued to be involved and does send out summaries of each sale.

Bylaws for the sale were written to include Cullman County and surrounding counties. However, because of the good market, pigs are brought from as far away as 120 miles.

The board of directors is elected during the annual membership meeting for 3-year terms on a rotating basis. There are 11 board members. The bylaws state that a majority of the board members must be residents of Cullman County.

Farmers Vegetable Market

Horticulture is significant in Cullman County, with $5 million worth of vegetables, fruits and nuts produced annually.

In July of 1978 we started with a vegetable curb market open 3 days per week. This has been very well accepted by the growers as well as the producers.

That project got off the ground in late 1977, when the Cullman County Chamber of Commerce cooperated with the Extension Service by furnishing financial assistance. The chamber surveyed the local grocery stores for any opposition to a vegetable market and found none. The county agent's office sent circular letters to all vegetable producers on our mailing list (563) and prepared a news release to three newspapers and three radio stations, announcing an organizational meeting for market vegetables. Three countywide meetings were held. Out of these meetings a board of directors was elected composed of five members and three advisors (Extension Service, FHA, and Chamber of Commerce).

An opening day was set for Saturday, July 22, in downtown Cullman. Two streets were blocked for kick-off of the market. Thirty-seven truckloads of produce were sold by 3 p.m. Local newspapers and radio stations covered the event. The market is open on Tuesdays, Thursdays, and Saturdays at the county fairgrounds within the city limits of Cullman.

The county fair board of directors agreed to let the farmers use its facilities without charge for the first year. The market's board of directors is locating property for a future market facility.

Our experience in working with farmers strongly indicates that it takes the involvement of large farmers in all marketing programs to make them successful for the small farmer.

A good example was a proposed central packing and grading facility for sweet potatoes. With 3,000 to 4,000 acres, Cullman County is by far the largest sweet potato producing county in Alabama. This is an excellent cash crop, and about 70% of the acreage is grown by farmers over the $20,000 gross income figure, according to a survey sent out by the county agent's office. However, many small farmers would like to grow sweet potatoes if a marketing system could be developed. Several well attended meetings were held. A majority of the large farmers are satisfied with their existing established marketing system. Therefore, enough volume for a central marketing system was lacking, and the system did not develop beyond the talking and meeting stages.

In summary, we view small farmers as a regular and important segment of our clientele. They are being served by our ongoing programs, and I'm convinced that they're being served effectively.

Extension and Small Farms in Louisiana

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Extension Service

• Small farms are an important part of the economic and rural setting in Louisiana. In 1974, more than 73% of all farms in Louisiana were small farms.[1,2] The Louisiana Cooperative Extension Service has a

[1]A small farm is defined as one that has gross farm sales of less than $20,000 per year.

[2]U.S. Bureau of Census, 1974 Census of Agriculture, Vol. 1, part 18, pp. 1-2.

long and rich history of distinguished service to the small farmer. The objectives of this report are: (1) to establish a statistical perspective of small farms, and (2) to determine the amount of extension resources being used to service small farms.

PROCEDURE

The procedure used to accomplish the first objective was to survey census data and other publications to get vital statistics concerning small farms. Louisiana Cooperative Extension personnel is conducting a detailed survey of small farms, however, it was not possible to complete this survey in time for this conference.

The second objective of this report was accomplished by surveying the field personnel of the Louisiana Cooperative Extension Service. A questionnaire was sent to each extension agent requesting that the agent list the number of contacts (1) with farmers or families of farmers selling less than $20,000 of farm products, and (2) with farmers or families of farmers selling more than $20,000 of farm products. A total of 252 extension agents participted in the survey.

The results of this survey were then compared to the percentage of the total farm population which the small farmers comprises and to the percentage of agricultural output produced by the small farms.

A STATISTICAL PERSPECTIVE OF LOUISIANA FARMS

The Louisiana agricultural industry is a vital part of the state's and the nation's economy. In 1974, sales of Louisiana agriculture produce exceeded $1 billion. Louisiana farms produce products varying from oranges and tangerines to soybeans. Table 1 shows the farm sales of small farms as compared to those of farms selling more than $20,000 of farm products.

Table 1 shows that 73% of all farms in Louisiana had farm sales of less than $20,000 per farm. This small farm group accounted for 7% of the state agricultural production.

Farms with average farm sales exceeding $20,000 accounted for only 27% of Louisiana farms, while producing 93% of the state's total agricultural production. Although small farms are numerous, their contribution to total farm sales is minimal.

Table 1. Farm numbers, percentage of farms, and value of farm products by gross farm sales[a]

Gross farm sales	No. of farms	% of all farms	Value of farm products sold $10,000	% of total farm sales
Less than $20,000	24,265	73	85,656	7
More than $20,000	8,975	27	1,108,066	93
All farms	33,240	100	1,193,722	100

[a]U.S. Bureau of Census, 1974 Census of Agriculture, Vol. 1, Part 18, pp. 1-2.

Small Farm Statistics

Table 2 shows the number of small farms by value of farm products sold in 1974.

The bulk of small farms or 15,382 farms sold less than $2,500 in farm products in 1974. The remaining 8,892 farms sold between $2,500 and $19,999 of farm products in 1974.

The large number of farms with low sales volume indicates that many of these farms must have other sources of income.

Table 3 compares the value of farm products sold to the principal occupation and age of the operator for those farms selling less than $2,500 in products.

A comparison of table 2 to table 3 shows that 9,999 of the 15,382 farmers that sold less than $2,500 of farm products listed their principal occupation as something other than farming. Thus no more than 14,266 of the 24,265 small owners consider their principal occupation to be farming.

Twenty-one percent of the farmers selling less than $2,500 of farm products are over 65 years of age. Table 3 shows that in Louisiana, 2,822 farmers that were under 65 years who listed their principal

Table 2. Small farm numbers by value of farm products sold, 1974[a]

Value of sales	Number	Number of farms selling less than $2,500 in farm products
Under $1,000	7,965	
$ 1,000-$ 1,499	3,325	
$ 1,500-$ 1,999	2,183	15,382
$ 2,000-$ 2,499	1,909	
$ 2,500-$ 4,999	3,359	
$ 5,000-$ 9,999	2,932	
$10,000-$19,999	2,601	

[a]U.S. Bureau of Census, 1974 Census of Agriculture, Vol. 1, Part 18, pp. 1-2.

Table 3. Small farms by principal occupation of operator and age[a]

	Occupation farming		Occupation other than farming	
Value of products sold	Less than 65 years	More than 65 years	Less than 65 years	More than 65 years
Under $1,000	1,397	876	4,705	738
$1,000-$1,499	594	410	1,859	320
$1,500-$1,999	431	311	1,114	167
$2,000-$2,499	410	230	949	147
Subtotal	2,822	1,827	8,627	1,372
Percent	19.3	12.5	58.8	9.4
Total	4,649		9,999	
Percent	31.8		68.2	

[a]U.S. Bureau of Census, 1974 Census of Agriculture, Vol. 1, Part 18, pp. 1-6.

occupation as farming that sold less than $2,500 of farm products in 1974.

Table 4 shows the number of farms in Louisiana by value of farm sales and by race.

The above data show that minority farms account for 8.3% of the total farms in Louisiana, while accounting for 10.4% of the small farms in the state. However, 92.3% of all minority farms are small farms.

RESULTS OF A SURVEY OF FIELD PERSONNEL OF THE LOUISIANA COOPERATIVE EXTENSION SERVICE

Tables 5, 6, and 7 show the results of a survey of Extension agents in Louisiana. Each agent was asked to list his contacts (1) with farmers who sold less than $20,000 of farm products per year and (2) with farms that sold more than $20,000 of products per year. This survey covers a 2-week period for September 10, 1978, to September 24, 1978.

County Agents

As shown in table 5, small farms which comprise 73% of the total farm numbers and account for 7% of Louisiana agricultural production accounted for 33.6% of the total farm contacts by Louisiana county agents. Large farms which account for 27% of the farms and produced 93% of the state agricultural output in 1974 accounted for 66.4% of the contacts of Louisiana county agents during this 2-week period. This appears to be a reasonable ratio between small and large farms taking into consideration the disparity in agricultural production between small and large farms.

Table 4. Number of Louisiana farms by value of farm sales and race, Louisiana, 1974[a]

Value of farm sales	All farms No.	White No.	White % white	Blacks & other minorities No.	Blacks & other minorities % minorities
All Farms	33,673	29,947	91.7	2,723	8.3
Less than $2,500	14,658	12,915	88.1	1,743	11.9
$2,500-$4,999	4,061	3,688	90.8	373	9.2
$5,000-$9,999	2,898	2,661	91.8	237	8.2
$10,000-$19,999	2,561	2,400	93.7	161	6.3
$20,000-$39,999	2,365	2,278	96.3	87	3.7
$40,000 or more	6,130	6,005	98.0	122	2.0

[a]United States Bureau of Census, 1974 Census of Agriculture, State and County Data, Louisiana, Volume 1, Part 18, Washington, D.C., U.S. Government Printing Office, 1977, as printed in David Orden, Debra D'Onofrio, A. Benjamin Pippe, Dennis K. Smith, and Robert Jensen, *Small Farms in Louisiana*, Department of Ag. Economics, Virginia Polytechnic Institute and State University.

Table 5. A comparison of the number of contacts by 92 county agents between small and large farms during the weeks of September 10 and September 17, 1978

	% of farm No.	% of farm sales	No. of contacts	% of total farm contacts
Small farm[a]	73	7	8,701	33.6
Large farm[b]	27	93	17,154	66.4

[a]A small farm is defined as one selling less than $20,000 of farm products.

[b]A large farm is defined as one selling more than $20,000 of farm products.

Home Agents

County extension home agents reported 63.6% (table 6) of their total farm contacts were with small farm families; while 36.4% were with large farm families. This is more closely associated with the distribution of small and large farms.

4-H Agents

As shown in table 7, 4-H agents in Louisiana had 57.5% of their total contacts with the small farm family. Many of these contacts are with 4-H club members through the local school systems. It appears that the members of families of the large farms are more likely to be involved in 4-H club work.

Summary of All Extension Contacts

Table 8 summarizes the contact that all extension agents in the survey had with the small and large farms.

Table 6. A comparison of the number of contacts by 59 home agents between small and large farms during the weeks of September 10 and September 17, 1978

	% of farm No.	% of farm sales	No. of contacts	% of total farm contacts
Small farm[a]	73	7	5,407	63.6
Large farm[b]	27	93	3,088	36.4

[a]A small farm is defined as one that sells less than $20,000 of farm products.

[b]A large farm is defined as one that sells more than $20,000 of farm products.

Table 7. A comparison of the number of contacts by 101 4-H agents between small and large farms during the weeks of September 10 and September 17, 1978

	% of farm No.	% of farm sales	No. of contacts	% of total farm contacts
Small farm[a]	73	7	13,474	57.5
Large farm[b]	27	93	9,958	42.5

[a]A small farm is defined as one that sells less than $20,000 of farm products.

[b]A large farm is defined as one that sells more than $20,000 of farm products.

Louisiana extension personnel had 47.7% of its total farm contacts with small farms during the weeks of September 10 and September 17, 1978.

SUMMARY AND CONCLUSION

Seventy-three percent of all farms in Louisiana are small farms. They produced 7% of Louisiana gross farm sales in 1974. More than 15,000 small farms had gross farm sales of less than $2,500. About 10,000 of the 15,000 farmers selling less than $2,500 of farm products listed their principal occupation as something other than farming.

No more than 14,500 of 24,277 small farms in Louisiana have farming as their principal occupation. The small farm problem is not restricted to a minority or ethnic group. Ninety percent of all small farmers are white and 10% belong to a minority group. However, 90% of all minority farmers are small farmers.

This study has found that the Louisiana Cooperative Extension Service is expending about 48% of its agricultural assistance with small farms. This appears to be consistent with a proper balance between servicing large farms which produce 93% of all Louisiana farm products and serving small farms that have 73% of total farms.

Table 8. Summary of all extension personnel contacts with small and large farms—252 Extension agents

	No. of contacts	% of total farm contacts
Small farm[a]	27,582	47.7
Large farm[b]	30,200	52.3

[a]A small farm is defined as one that sells less than $20,000 of farm products.

[b]A large farm is defined as one that sells more than $20,000 of farm products.

Getting Information to Small Farmers

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How Small Farmers Get Information and Make Decisions

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Assistant Director
North Carolina Extension Service

• America began as a land of small farmers and rapidly developed through the family-farm concept. Today, the American farmer is still the best in the world, his production nothing short of phenomenal in quality, quantity, and variety. In spite of inflation, he continues to provide the United States' population with an adequate food supply at a cost more reasonable than that found in any other country.

Much attention was given in the past to large, corporate farmers, agribusinessmen as some of them prefer to be called. Today, however, there is renewed interest in the "small farmer." Population trends of past years are reversing, and many rural areas throughout America are experiencing population growth. Along with this trend, we find that some of these residents are engaging in farming. Whereas the production of the nation's smaller farms is predicted to decline as a percentage of the total production of all farmers, small farms will not disappear. Thus, helping small farmers do a better job with the resources they have must continue to be an important role of educational organizations and agencies who work with them.

Managing resources effectively is, in essence, a process of decisionmaking, one involving the identification of problems, the gathering of information about the best way to solve them, and the actual implementation of solutions to them. Small farm families, although differing from large-farm operators in capital, acreage, and diversity, do share with them the same need to manage resources effectively. And, perhaps, the need to do so is even more acute for the small farmers, considering their already rather meager resources. The decisionmaking process of small farmers and the kinds of information sources they utilize are, thus, important. Little empirical data have been collected and even fewer conclusions drawn about these matters, however, until recently.

North Carolina Study

Dr. Estelle E. White, five graduate students (from Virginia, West Virginia, and Georgia), and myself recently investigated decisionmaking and communication patterns of small farm families in northeastern North Carolina. We were interested in the following questions, the answers to which constitute the main body of this paper:

1. Who are small-farm families, and what are their characteristics?
2. What kinds of major farm and home decisions are small farm families making?
3. How rational are their decisionmaking processes?
4. What major sources of information are used by small farm families in making decisions?
5. What is the degree of linkage between interpersonal and research-based information sources used by small farm families?
6. What implications do the findings of this study have for educational organizations and agencies working with small farm families?

Now for answers to our first question—"Who are small farm families, and what are their characteristics?" No universally accepted definition of a small farm or a small farm operator exists. The Department of Commerce announced on August 12, 1975, "that the census definition of a 'farm' was any establishment which during the census year had or normally would have had sales of agricultural products of $1,000 or more."[1] The ECOP Subcommittee for Agriculture, Forestry, and Related Industries in April, 1976, in addition, defined a small farm operator as a person who (1) is under 65 years of age, (2) works off the farm for wages less than 100 days a year, and (3) sells less than $20,000 of agricultural products annually.[2] At a congressional hearing on *Upgrading Small Farmer Operations* held during June 1976, a "small farm operator" was defined somewhat differently as an "individual operating a farm with gross annual farm sales of less than $20,000 and annual off-farm income of less than $5,000."[3]

This last definition is quite valuable, allowing for division of this category of farms into four classes,

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[1]U.S. Bureau of the Census. *1974 Census of Agriculture* (U.S. Government Printing Office, June 1977), Vol. 1, Part 33.

[2]ECOP Subcommittee, Agriculture, Forestry, and Related Industries, *Extension Educational Opportunities with Small Farm Operators: Small and Part-Time Farmer Task Force,* Appendices to August, 1976, ECOP Minutes.

[3]*Upgrade Small Farmer Operations.* Hearing before the Subcommittee on Family Farms and Rural Development of the Committee on Agriculture, House of Representatives, 94th Congress, 2nd Session, Serial No. 94-EEE (Washington, D.C.: U.S. Government Printing Office, June 10, 1976), p. 4.

namely: (1) sales of $1,000-2,499; (2) sales of $2,500-4,999; (3) sales of $5,000-9,999; and (4) sales of $10,000-19,000. This classification provides change agents with a more current operational framework to employ in thinking about the small farm and in delineating it from those of greater capacity.

Criteria Used

To be included in the North Carolina study on decisionmaking and communication patterns of small farm families the family had (1) to consist of a man, wife, and children (if any) domiciled together; (2) to meet the criteria used by the U.S. Census in 1970 for "farm"; and (3) to have an income below the eligibility standard set in 1972 for the North Carolina Social Services Food Stamp Program (i.e., $4,320 per year for a family of four). This definition is still congruent with the current Census definition of "farm."

Now, back to question number one—"Who are small farm families, and what are their characteristics?" Data collected regarding the characteristics of small farm families in our study yielded information on both the individual farm operator and the corresponding homemaker, and on family units as well.

The characteristics of the individual farm operator and homemaker were subsumed under three categories: social, psychological, and political. The findings revealed that the study's population was

1. Older, with low levels of formal educational attainment
2. Either working full time on the farm or keeping house full time
3. Characterized as nonparticipants in organizations
4. Highly immobile
5. Moderately to highly anomic
6. Politically naive (although they did vote).

In addition, the individuals in this study could not be characterized as either present or future value-oriented. The findings indicated no clear-cut tendency toward either a present or a future value orientation.

Data regarding family units were collapsed into a single category labeled "socioeconomic." Data in that category characterized the farm family unit as black, with a total annual income of less than $6,000, in poor health and receiving poor health care. The family was of the nuclear type, averaging 5.2 members and having various types of tenure arrangements consummated at least 10 or more years prior to the time of this study.

Scores on a family living index indicated the extent to which the farm families had acquired such amenities of life as automobiles, washing machines, television sets, and air conditioners. Results of this index indicated that farm families in this study maintained an endurable level of living. A possible contribution to that level of living was the provision of food stamps and other social service benefits that supplemented their resources.

Decisions Facing Small Farmers

The second question to which answers were sought was "what kinds of major farm and home decisions are small farm families making?" Farm decision matters were categorized as (1) capital investment, (2) farm management, (3) financial, (4) leasing arrangements, (5) production and marketing, and (6) other/miscellaneous. Subjects of home decisions were categorized as (1) clothing, (2) health, (3) home furnishings, (4) home management, (5) housing, (6) nutrition, and (7) other/miscellaneous. The distributions within these categories are listed in table 1.

The study found that small farm family respondents engaged in a broad range of farm and home decisions. The largest number of farm decisions concerned production and marketing (33%) and farm management (32%). The respondents were also involved in many other financial, leasing, and capital-investment decisions. In general, the nature of the decisions in all farm decision categories required farm operators to possess considerable knowledge and the ability to think logically. As for home decisions, 85% of the major decisions homemakers reported having made were related to house furnishings, home management, and housing. Few were related to nutrition, family health, and clothing. As with farm decisions, the nature of the

Table 1. Frequency distribution of major farm and home decisions reported by disadvantaged farm families

Decision Category	Respondents	
	N	%
Farm operator:		
Capital investment	11	8
Farm management	41	32
Financial	22	17
Leasing	10	8
Production and marketing	43	33
Other/miscellaneous	3	2
Inadequate information/no response	0	0
Total	130	100
Homemaker:		
Clothing	3	2
Family health	8	6
Home furnishings	28	22
Home management	49	38
Housing	33	25
Nutrition	7	5
Other/miscellaneous	1	1
Inadequate information/no response	1	1
Total	130	100

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home decisions in general demanded that homemakers have specialized technical knowledge and skills in various areas.

Rationality of Decisionmaking

The third question dealt with "how rational are the decisionmaking processes used by small farm families in making these decisions?" Rationality in decisionmaking was defined as conformity to an ideal process consisting of five subprocesses, namely: (1) orientation—being aware of goals or problems; (2) observation—seeking information; (3) analysis—analyzing and choosing alternatives; (4) implementation—acting; and (5) feedback and adjustment—reassessing the choice and accepting its consequences. Rationality-of-decisionmaking scores for both farm operators and homemakers were quite high, indicating that the decisionmaking process in which they were engaged was extremely rational. The question arose as to whether these high scores resulted from the research instrument or the homogeneous population. This study contends that the instrument validity reflected the rationality in decisionmaking of the respondents. The screening process produced a homogeneous population, a homogeneity reflected in the lack of variation not only in the rationality-in-decisionmaking scores but in the scores on all of the other scales employed in the study as well.

Question number four sought answers to "what are the major sources of information utilized by small-farm families in making decisions?" This study contended that a communication channel's effectiveness is determined by its availability, the extent to which it is used, and its credibility as perceived by the users.

Availability of information sources was measured by the number of small farm families having a working television set or radio in the home and receiving daily newspapers, bulletins-pamphlets, and the *Farmer's Almanac* or magazines. Usage was measured by having the respondents indicate the information sources used in making their decisions. Credibility (defined as being worthy of credit, reliance, or confidence as to truth and correctness) was obtained through a forced-choice technique in which respondents were required to rank media/information sources as most credible, second most credible, etc. To investigate the availability, usage, and credibility of communication channels, the researchers classified media into three categories—interpersonal, mass, and publications. In this study mass media refers to newspapers, radio, and televison; publications media, to bulletins-pamphlets, the *Farmer's Almanac*, and magazines; and the interpersonal media, to agents (county Extension agents, nutrition aides, agriculture technicians, vocational-agricultural teachers, home economics teachers, representatives of other governmental agencies, and lending institutions), the church (ministers), farm and home dealers, and family, friends, and neighbors.

Availability Findings

The measurements (figure 1) show that mass media were 24% more available than publications media. Of the mass media, television was most available (38.5%), radio second (34.5%), and newspapers least (27%). Information sources cited in the publications media indicated that the *Farmer's Almanac* was most available (39%), bulletins-pamphlets second (35.5%), and magazines least (25.5%).

The study assumed that small farm families would have abundant access to interpersonal media.

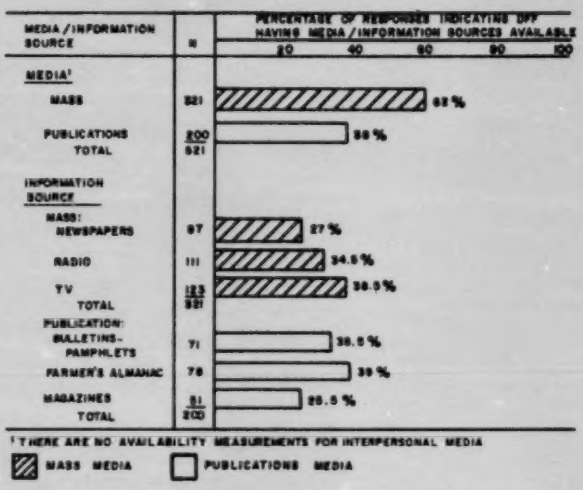

Figure 1. Availability of media and information sources to disadvantaged farm families

Usage Findings

In comparing data usage of the three major media in decisionmaking (figures 2 and 3), both farm operators and homemakers indicated that interpersonal media was the most used, mass media second, and publications media the least. Farm operators and homemakers demonstrated similar interpersonal media usage patterns. Both used the family-friends-neighbors category the most, followed by change agents, then dealers, and finally the church. The mass media usage patterns of farm operators and homemakers in making a major decision were again very similar. Both used television the most, followed by radio, and then magazines. Similar usage patterns occurred with publications media. Both used magazines the most, followed by the *Farmer's Almanac*, and then by bulletins-pamphlets.

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Although the usage patterns were almost identical, there were slight differences in two categories. Four percent more of the homemakers reported using magazines and family-friends-neighbors as sources than did farm operators.

Another way of looking at usage patterns is to examine the combinations of media used in making a decision. Data in table 2 illustrate those combinations of media used by both farm operators and homemakers. Data indicate that farm operators and homemakers used a combination of three media and that interpersonal media was present in each of the most frequently used combinations.

Table 2. Combinations of media used by farm operators and homemakers in making a major decision

Combination of media	Farm operators		Homemakers	
	N	%	N	%
Interpersonal only	29	22	42	32
Mass only	1	1	0	0
Mass-interpersonal	35	27	19	15
Mass-publications	0	0	3	2
Publications-interpersonal	4	3	12	9
Mass-publications-interpersonal	57	44	47	36
No media used	4	3	7	5
Total	130	100	130	99

Credibility

Farm operators and homemakers (figures 4 and 5) perceived interpersonal media to be most credible by a large margin and publications media to be more credible than mass media even though the latter was used more than the former. Farm operators and homemakers perceived change agents to be the most credible of the interpersonal media, followed by family, friends, or neighbors. Again, small farm families used family, friends, or neighbors most when seeking information. Among the mass media, both farm operators and homemakers perceived television to be the most credible by a wide margin, newspapers second, and radio least.

Some differences between farm operators' and homemakers' credibility data exist, however. Note the lower credibility assigned to the publications category by homemakers as contrasted to the rating of farm operators (bulletin-pamphlets—12% to 20%; the *Farmer's Almanac*—32% to 61%; magazines —27% to 48%).

Educational organizations and agencies should use the media or information sources that are most available to small farm families only if those media or information sources are perceived by them as credible and are frequently used. A media or information source frequently used but has little credibility would not be an effective communication channel in reaching the small farm family. Figure 6 is a flow chart that contains questions that educational organizations and agencies should ask before selecting media/information sources to use in either

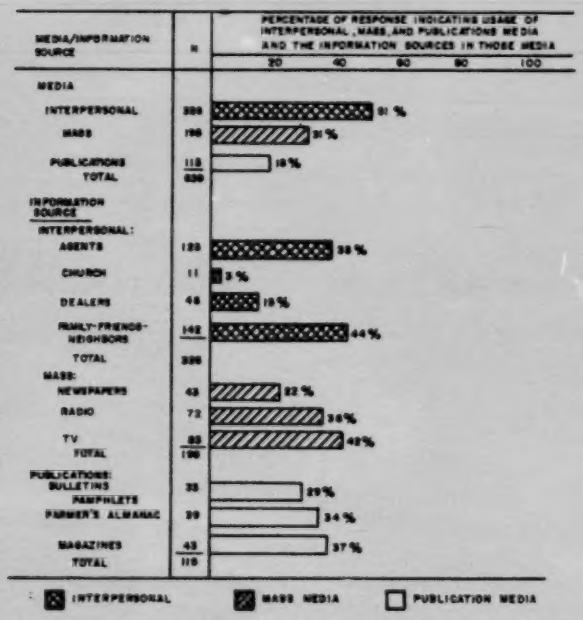

Figure 2. Usage of interpersonal, mass, and publications media and of the information sources in those media (farm operators)

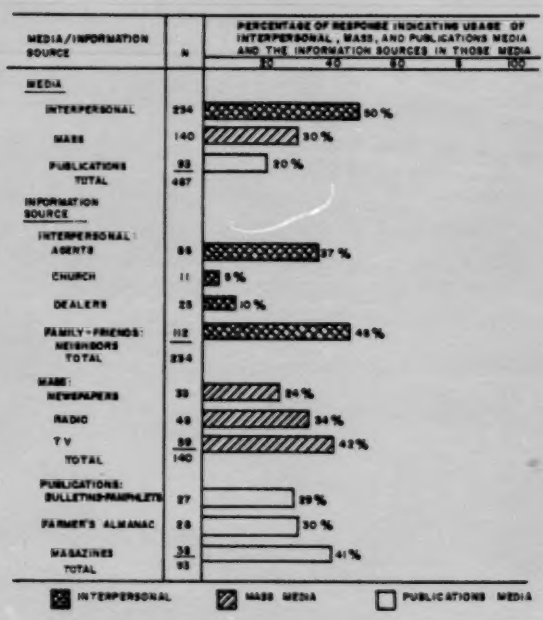

Figure 3. Usage of interpersonal, mass, and publications media and of the information sources in those media (homemakers)

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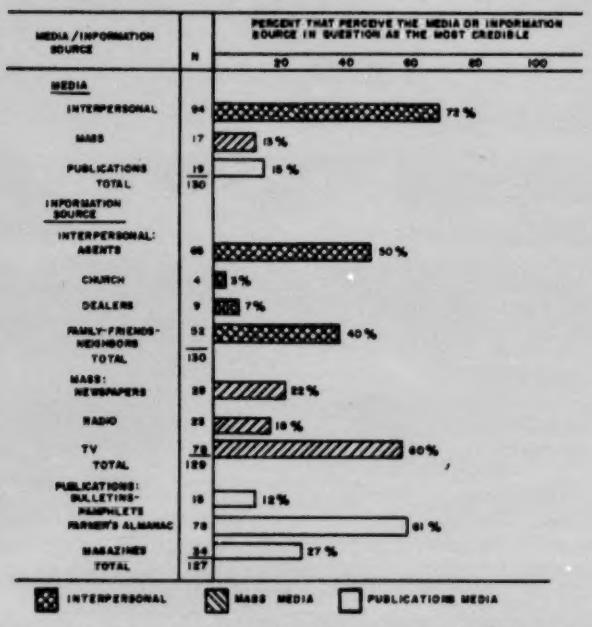

Figure 4. Credibility of the interpersonal, mass, and publications media and of the information sources in those media (farm operators)

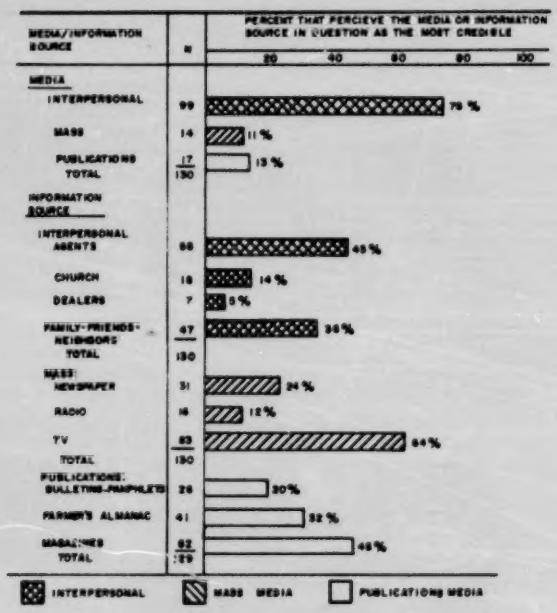

Figure 5. Credibility of the interpersonal, mass, and publications media and of the information sources in those media (homemakers)

disseminating information to or intervening to effect change in the decisionmaking patterns of small farm families.

Question five sought to determine the degree of linkage between interpersonal and research-based information sources used by small farm families in making decisions. More specifically, this study was concerned with three questions regarding linkage between small farm families and their information sources, namely: (1) how far removed are small farm families from research-based information sources? (2) Is there a heterophilic relationship between small

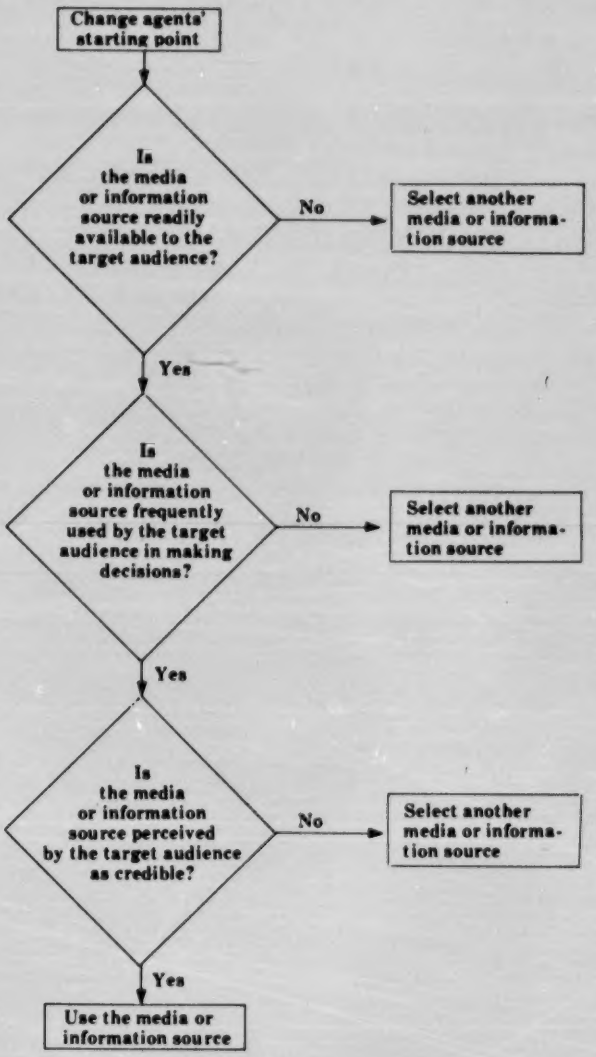
Change agents' starting point
Is the media or information source readily available to the target audience?
No
Select another media or information source
Yes
Is the media or information source frequently used by the target audience in making decisions?
No
Select another media or information source
Yes
Is the media or information source perceived by the target audience as credible?
No
Select another media or information source
Yes
Use the media or information source

Figure 6. Schematic diagram illustrating a procedure change agents may utilize in selecting media/information sources/channels for disseminating information to DFF or intervening to effect change in their decisionmaking patterns

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farm families and their direct interpersonal sources of information? And (3) what are the characteristics of those persons who channel information to small farm families? The term research-based information source in this study refers to a person (specialist or researcher in a specific subject matter area) who represents a profession or institution recognized by the scientific community as possessing impartial research information validated empirically rather than subjectively or ethically. Also, any written or published research information transmitted by these individuals was considered a research-based source of information.

To determine the extent to which information used by small farm families was linked to research-based sources, this study traced, through five chains if necessary, the interpersonal sources of information used by small farm operators and homemakers. If either the first or second source of information used was research-based, the linkage was categorized as "closely linked." If the third source of information used was research-based, the linkage was categorized as "distantly linked." If a research-based source of information was not detected among the first three sources, the linkage was categorized as "not linked." This procedure is illustrated by the following schematic diagram (figure 7).

Data (table 3) show that 38% and 39% of the farm and home decisions, respectively, were "closely linked" through interpersonal sources to research-based information. The remainder of the communication chains were either "distantly linked" or "not linked" to the farm and home decisions made.

The second specific concern of the research on linkage was to determine if there is a heterophilic relationship between small farm families and their direct interpersonal source of information. Characteristics used in testing the relationship were (1) age, (2) education, (3) ethnic background, (4) income, (5) present/future value orientation, and (6) social participation.

Pronounced differences exist (table 4) between farm operators and their stage A or direct interpersonal information source for all characteristics other than age and present/future value orientation. Thus, a heterophilic relationship between farm operators and their stage A source exists.

Table 3. The degree of linkage between research-based information sources and those interpersonal sources used by disadvantaged farm families as a basis for making farm or home decisions

Interpersonal information sources used	Closely linked		Distantly linked		Not linked		Total	
	No.	%	No.	%	No.	%	No.	%
Farm decisions	11	38.0	10	34.5	8	27.5	29	100
Home decisions	7	39.0	3	17.0	8	44.0	18	100

Significant differences were also found (table 5) between homemakers and their stage A sources in terms of education, income, present/future value orientation, and social participation. A heterophilic relationship also exists between homemakers and their direct interpersonal source of information.

The final concern of the research on linkage was to determine the characteristics of those persons who

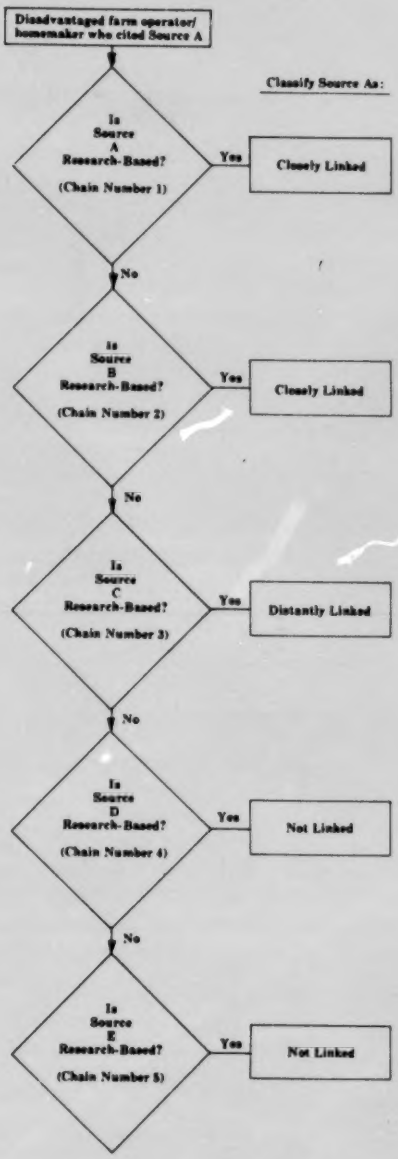

Figure 7. Schematic diagram illustrating the procedure used to determine degree of linkage between interpersonal information sources cited by disadvantaged farm operators/homemakers and research-based sources

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Table 4. Chi-square tests for significant differences between selected characteristics of disadvantaged farm operators and their stage A interpersonal source of information

Characteristic	Disadvantaged farm operator	Stage A source	Total N	df	X^2
Age, yr:					
49 or less	13	12	25		
50-59	11	10	21		
60 or more	5	7	12		
Total	29	29	58	2	.42
Education, yr:					
4 or less	15	3	18		
5-7	9	3	12		
8 or more	5	23	28		
Total	29	29	58	2	22.56[a]
Ethnic background:					
Black	26	7	33		
White	3	22	25		
Total	29	29	58	1	25.38[a]
Income:					
$3,999 or less	19	3	22		
$4,000-6,999	9	3	12		
$7,000-9,999	1	9	10		
$10,000 or more	0	14	14		
Total	29	29	58	3	35.04[a]
Present/future value orientation score:					
Low = 7-12	8	6	14		
Medium = 13-16	11	5	16		
High = 17-21	10	18	28		
Total	29	29	58	2	4.80
Social participation score:					
Low = 0-3	13	1	14		
Medium = 4-8	6	2	8		
High = 9-36	10	26	36		
Total	29	29	58	2	19.40[a]

[a]Significant at the .01 level.

channeled information to small farm families. The interpersonal sources involved in the flow of information (i.e., sources A, B, C) to farm operators (table 6) in this study most often were white farm operators or private dealers, less than 50 years of age, having 8 or more years of education and a farm background, working full time off the farm for an annual income of $10,000 or more, and having resided in the county for 20 years or more. For homemakers' interpersonal sources (table 7) a profile similar to that for farm operators resulted, except that those involved in the flow of information to homemakers were about equally likely to be black as white and could not be characterized by either income or occupation.

Our final question was, "What implications do the findings of this study have for educational organizations and agencies working with small farm families?" The following conclusions were drawn:

1. The members of the population in this study exhibited great similarity in their social, psychological, political, and economic characteristics, implying that they may constitute a subculture within the larger culture. Because of this, they probably tend to have similar interests and needs. Thus, uniform strategies might be tailored that appeal especially to the interests and needs of small farm families.

2. Farm operators and homemakers in this study constituted an older population. Thus, educational organizations and agencies should think in terms of providing approaches appropriate for the solution of needs characteristic of an older population. The developmental tasks identified by Havighurst

Table 5. Chi-square tests for significant differences between selected characteristics of disadvantaged homemakers and their stage A interpersonal source of information

Characteristics	Disadvantaged homemakers N = 18		Stage A sources N = 18		Stage B sources N = 8		Stage C sources N = 3	
	N	%[a]	N	%	N	%	N	%[a]
Age, yr:								
49 or less	6	33	11	61	5	63	1	33
50-59	8	44	4	22	2	25	1	33
60 or more	4	22	3	17	1	12	1	33
Total	18	99	18	100	8	100	3	99
Education, yr:								
4 or less	3	17	1	6	0	0	0	0
5-7	7	39	2	11	0	0	0	0
8 or more	8	44	15	83	8	100	3	100
Total	18	100	18	100	8	100	3	100
Ethnic background:								
Black	14	78	8	44	6	75	1	33
White	4	22	10	56	2	25	2	67
Total	18	100	18	100	8	100	3	100
Income:								
$3,999 or less	12	67	5	28	1	12	1	33
$4,000 to 6,999	5	28	4	22	0	0	0	0
$7,000 to 9,999	1	5	4	22	3	38	1	33
$10,000 or more	0	0	5	28	4	50	1	33
Total	18	100	18	100	8	100	3	99
Present/future value orientation score:								
Low = 7-12	6	33	0	0	0	0	0	0
Medium = 13-16	3	17	7	39	0	0	0	0
High = 17-21	9	50	11	61	8	100	3	100
Total	18	100	18	100	8	100	3	100
Social participation score:								
Low = 0-3	7	39	0	0	0	0	0	0
Medium = 4-8	5	28	1	6	1	13	0	0
High = 9-36	6	33	17	94	7	87	3	100
Total	18	100	18	100	8	100	3	100

[a]Total percentages do not always equal 100 due to rounding error.

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Table 6. Frequency distribution of interpersonal farm information sources cited by disadvantaged farm operators according to selected socio-economic characteristics

	Stage A sources N = 29		Stage B sources N = 15		Stage C sources N = 4	
Characteristic	N	%	N	%	N	%[a]
Age, yr:						
49 or less	12	41	9	60	3	75
50-59	10	34	3	20	1	25
60 or more	7	24	3	20	0	0
Total	29	99	15	100	4	100
Education, yr:						
4 or less	3	10	2	13	0	0
5-7	3	10	1	7	0	0
8 or more	23	79	12	80	4	100
Total	29	99	15	100	4	100
Employment status:						
Full time (40 hr/week)	27	93	15	100	4	100
Unable to work	1	3	0	0	0	0
Retired	1	3	0	0	0	0
Total	29	99	15	100	4	100
Ethnic background:						
Black	7	24	2	13	0	0
White	22	76	13	87	4	100
Total	29	100	15	100	4	100
Income:						
$3,999 or less	1	3	0	0	0	0
$4,000-6,999	5	17	2	13	0	0
$7,000-9,999	9	31	2	13	1	25
$10,000 or more	14	48	11	73	3	75
Total	29	99	15	99	4	100
Length of residence in county, yr:						
1-9	2	7	0	0	0	0
10-19	1	3	1	7	0	0
20-29	2	7	2	13	1	25
30 or more	7	24	0	0	0	0
Entire life	17	59	12	80	3	75
Total	29	100	15	100	4	100
Occupation[b]						
Farm operator	19	66	8	53	1	25
Government agency	3	10	0	0	0	0
Private dealer	3	10	7	47	3	75
Research	2	7	0	0	0	0
Other	2	7	0	0	0	0
Total	29	100	15	100	4	100
Childhood residence:						
Farm	22	76	14	93	3	75
Town	6	21	1	7	1	25
City	1	3	0	0	0	0
Total	29	100	15	100	4	100

[a] Total percent does not always equal 100 due to rounding error.
[b] Farm operator = farm operator; Government agency = ASCS office manager, FHA supervisor, PCA loan officer; private dealer = banker, dealer or salesman (food, seed, fertilizer, chemicals, farm supplies, farm equipment), peanut shelling company manager; research = Extension specialist, Extension agents (agriculture and home economics), soil conservation technician, doctors; and other = deputy sheriff and funeral home director.

Table 7. Frequency distribution of interpersonal home information sources cited by disadvantaged homemakers according to selected socio-economic characteristics

	Stage A sources N = 18		Stage B sources N = 8		Stage C sources N = 3	
Characteristic	N	%	N	%	N	%[a]
Age, yr:						
49 or less	11	61	5	63	1	33
50-59	4	22	2	25	1	33
60 or more	3	17	1	12	1	33
Total	18	100	8	100	3	99
Education, yr:						
4 or less	1	6	0	0	0	0
5-7	2	11	0	0	0	0
8 or more	15	83	8	100	3	100
Total	18	100	8	100	3	100
Employment status:						
Full time (40 hr/week)	10	55	6	75	2	67
Housewife	5	28	1	12	1	33
Unable to work	1	6	0	0	0	0
Retired	2	11	1	13	0	0
Total	18	100	8	100	3	100
Ethnic background:						
Black	10	56	2	25	1	33
White	8	44	6	75	2	67
Total	18	100	8	100	3	100
Income:						
$3,999 or less	5	28	1	12	1	33
$4,000-6,999	4	22	0	0	0	0
$7,000-9,999	4	22	3	38	2	67
$10,000 or more	5	28	4	50	0	0
Total	18	100	8	100	3	100
Length of residence in county, yr:						
1-9	1	5	3	38	0	0
10-19	1	6	0	0	0	0
20-29	0	0	1	12	1	33
30 or more	5	28	1	12	1	33
Entire life	11	61	3	38	1	33
Total	18	100	8	100	3	99
Occupation[b]						
Housewife	7	39	1	12	2	67
Government agency	5	28	5	63	1	33
Private dealer	3	16	1	12	0	0
Research	1	6	0	0	0	0
Other	2	11	1	13	0	0
Total	18	100	8	100	3	100
Childhood residence:						
Farm	14	78	4	50	3	100
Town	4	22	3	38	0	0
City	0	0	1	12	0	0
Total	18	100	8	100	3	100

[a] Total percent does not always equal 100 due to rounding error.
[b] Housewife = housewife; Government agency = ASCS office manager, FHA supervisor, PCA loan officer; private dealer = banker, dealer or salesman (feed, seed, fertilizer, chemicals, farm supplies, farm equipment), peanut shelling company manager; research = Extension specialist, Extension agents (agriculture and home economics), soil conservation technician, doctors; and other = deputy sheriff and funeral home director.

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(1952) would be a good starting point. Because the population was older, a conservative, mature delivery approach is recommended.

3. Educational organizations and agencies working in the area of health should address the health educational needs of small farm families since poor health and health care were pointed out as problems.

4. The respondents in this study had low levels of educational attainment. Not only are they likely to be uninformed regarding many problems that greatly affect their welfare; they also are less likely to have the ability to be self-learners. It is recommended that educational organizations and agencies continue to give small farm families individualized help and that this approach to them must be simple and direct. Perhaps paraprofessionals could be employed.

5. Where the small farm family is of the tenant type, educational organizations and agencies could accomplish more by approaching the landowner himself, since efforts with an audience of tenant farmers would be influenced heavily by what the landowner allows his tenants to do. This is in no way to say that educational organizations and agencies should not work with tenants. It is merely to point out that change agents must be cognizant of the avenue through which they might reap the greatest results for their efforts.

6. About one-third of the small-farm families in this study were characterized as future value-oriented. Thus, programs for the remaining two-thirds should seek to provide immediate gratification while at the same time help them recognize and focus on future goals.

7. Respondents were involved in more farm management decisions than this study had assumed. Thus, research-based information sources should continue to provide factual and technical information on production and marketing but also place more emphasis on programs dealing with farm management.

8. Homemakers appeared to exhibit high standards of care and a sense of pride in their homes. Therefore, educational programs designed to assist homemakers with housing improvement appear to be of greatest need. However, there is an urgent need for programs designed to increase homemakers' awreness of the need to become more concerned with their families' basic clothing, health, and nutrition needs.

9. Respondents in this study exhibited rationality in decisionmaking, which implies that problems addressed to small farm families could take the form of effective information dissemination and educational programs.

10. Of the three communication media studies (interpersonal, mass, and publications), the interpersonal was the most frequently used and perceived as most credible to the small farm family. The findings of this study indicate that the interpersonal source of information is an excellent communication channel for influencing small farm families.

11. Television appears to be the most appropriate mass medium for programming aimed at small farm families; radio, the second best. Educational television is the most probable source of such programming, and efforts in that direction should be supported. Radio programming on a local basis also seems a likely possibility.

12. Publication media were ranked low in availability, usage, and credibility, and, thus, appear to be relatively unimportant for communicating with small-farm families. Printed material especially designed for small farm families, however, might be useful; i.e., materials written with special attention given to the readability level on a wide variety of subject matter would probably be of interest to this clientele. School-age youngsters often are available to help their parents with such materials.

13. The *Farmer's Almanac* ranked high in availability, credibility, and usage. It seems probable that concise research-based material displayed in a format similar to that of the *Farmer's Almanac* might be well received.

14. Bulletins ranked very low in usage and credibility. Level of readability should be given special attention relative to this communication source.

15. Interpersonal information sources used by the majority of the small farm families were not closely linked to a research-based source, which indicates inadequate communication between the change agent and the small farm family. The difference between the change agent and small farm family in personal and social characteristics (i.e., heterophilic relationship) may direct the small farm family to seek information from individuals with whom they have more in common. Unfortunately, such homophilic interpersonal relationships seldom bring about an exchange of scientifically based information.

Thus, more individuals from the small farm family should be trained as paraprofessionals to serve as intermediate sources in transferring to small farm families pertinent information from research-based sources.

16. Another implication stems from the description of the occupation of typical stages A, B, and C information sources. Such descriptive information revealed that even when individuals did not turn to research-based sources for information, there often were typical sources from whom they sought advice. For example, farm operators often consulted feed, seed, and fertilizer salesmen or dealers before making a purchase or a farm production decision. Similarly, social service workers were one of the nonresearch-based information sources often cited by homemakers.

Many of the foregoing communication sources appeared to fill the role of opinion leader. Contrary to the view widely held by a number of authors, these

opinion leaders were of a higher social status than those they influenced. These opinion leaders should be identified, made more aware of research-based information, and urged to work toward its application.

17. The finding that the county agricultural extension agent was the source most often cited in stages B and C of the communication chain implied that, while the agent may not have communicated personally with the small farm operators, he was a key factor in getting information to them. The same appeared to be true for home economics extension agents, who also were the most typical stage B source of information with regard to the home portion of the study.[4]

[4]This conclusion is supported by findings in a Missouri study which show that farmers who do not receive information from agricultural agencies tend to seek information from farmers having contact with the county agent. Herbert F. Lionberger, *Information Seeking Habits and Characteristics of Farm Operators.* Columbia: Missouri Agricultural Experiment Station, Res. Bul. 581, April, 1955. Similar findings were also reported by C. Milton Caughenour, *Agricultural Agencies as Information Sources for Farmers in a Kentucky County, 1950-55.* Lexington: Kentucky Agricultural Experiment Station, Progress Report 82, November 1959.

Information and Help Available at the Southern Rural Development Center

JAY CHANCE
Southern Rural Development Center
Mississippi State University

• I am very pleased that you invited a representative of the Southern Rural Development Center (SRDC) to participate in the Southern Small Farm Management Workshop. I bring you greetings from the Southern Rural Development Center. The Director, Dr. William Linder, sends sincere regrets that he could not attend.

The Southern Rural Development Center was organized in 1974 as one of the four regional rural development centers in the Nation. It has its own board of directors, in accordance with the mandate of the Rural Development Act of 1972. This board is composed of four Cooperative Extension Service directors, four experiment station directors, and one member from industry. There is substantial distribution of these board members over the Southern States.

The staff of the SRDC is small: A part-time director, a part-time associate director, a program analyst, an editor, and few support staff members.

The center was established to provide back-up support and technical consultation to the research and extension staffs in their community resource development efforts in the 14 Southern States. Our work, therefore, brings us in contact with all personnel at the land-grant colleges and universities interested in rural development.

We were determined from the inception of the southern center that it would facilitate broad-based participation. To this end we have three major focal points (1) interinstitutional participation, (2) interdisciplinary involvement, and (3) regional representation. These principles are reflected in the manner in which we have implemented the task assigned to the center.

Representatives of the Southern States have identified a priority list for problem solving in their plans of work under Title V activities. One of the areas listed is small farms. Examples of other areas are: citizen participation, land use, health care, and educational needs. The center is concentrating on 10 of these areas, with funds being made available this year to begin work on two more.

The SRDC's answer to solving problems in each of these 10 areas is to bring together recognized experts, professionals, and educators from across the South. We call these groups of people "functional networks." The networks are under the leadership of a center associate who proposes work for helping to solve the problem. A total of 122 people have been involved with our network concept.

Each network prepares an annotated bibliography, a synthesis paper, a 4-page pamphlet, a final report, and conducts a region-wide workshop. The networks are disbanded as their research projects

are completed, but may be regrouped to give technical consultation where their expertise will prove useful.

Our network on small farms has completed its work. We will share copies of some of the publications that this network is responsible for developing in a few minutes.

But, first we acknowledge to you that our immediate staff at SRDC does not have the small farm expertise that exists in this room. You are the people who have the expertise. We would like to point out that we can provide assistance to you. The emphasis at our office on small farms can be regrouped to serve you in many areas. Examples are:

- Sponsor regional workshops which you might lead.
- Publish concept papers and findings which you prepare.
- Makes our quarterly magazine available for your use; to serve your needs.
- Serve as a communication link in whatever way you deem necessary.
- Serve as a facilitator.
- Serve you by lifting up different points of view.

Through these and many other ways, we can serve you.

So that we might have some feedback, I am going to use the remainder of our time to do two things:

1. Introduce you to materials prepared by SRDC. Included are the magazine that presents information on small farms, plus small farm bibliography and synthesis paper. We will distribute copies of the magazine and have order forms available for the bibliography and synthesis papers.)
2. Ask for your assistance in showing us at the Southern region how we might provide for the needs of the small farmer and, in particular, how we might expedite actions coming from this conference.

Needs and Aspirations of People on Small Farms

S. J. PARKER
Dean, Division of Agriculture and Technology
University of Arkansas at Pine Bluff

• Most of our farmers are small farm operators. So, we are talking about the mass of farmers.

There is no satisfactory definition for the small farmer. It depends on locality, acres, source of income, poverty classification, and income. Definitions are generally arbitrary.[1]

Several years ago, OEO adopted $3,000 as the level below which was proverty income. In 1975, the definition of a farm was changed to include gross sales of $1,000 per year or more. In some locations it is 1 to 150 acres depending on the kind of crops or type of farming; others hold that the source of income must be half from the farm and the farmer must put half of his worktime on the farm. These are just some of the many definitions.

What do you call the small farm operator? Collectively one finds it difficult to agree on an acceptable term which gives the small farmer a justifiable or descriptive name which is adequate. Example: disadvantaged farmer, low-income farmer, low-income problem, and limited resource farmer.

Characteristics of the Small Farm Operator

Small farmers have many and varied characteristics which must be taken into account in an effort to understand their needs and aspirations.

Characteristics: (1) Small acreage, (2) eighth grade education or less usually, (3) limited buying power, (4) lack of capital, (5) limited employment off or on the farm, (6) responds slowly to innovative ideas which would lead to change, (7) independent, (8) conservative, (9) little or no modern equipment, (10) lacks credit and reluctant to seek very much, (11) lacks plans and objectives for much land expansion,

[1]W. Arden Colette and Gail Easley, "The Role of Communication and Attitudes in Small Farm Programs," A Synthesis-Southern Rural Development Center. Rural Development Series No. 4. August 1978.

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(12) 50 to 65 years range in age, and (13) vacation period too long.

Needs and Aspirations of the Low-Income or Small Farmer

1. What do you need to be a better farmer?
   - Seek, secure, and use information from various agencies
   - Marketing
   - Production
   - Loaning agencies
   - Equipment and tools
   - Capital
   - Concentrate on a money-making crop
   - Get the little farmers together
   - Good and fair prices
   - Part-time labor
   - County agent cooperation
   - Irrigation
   - Contract crops; bonds for the contract-bonded person
   - Individual crop insurance
   - Mule
   - Garden plow
   - God
   - Market supervisor
   - Farm to market road
   - Suitable soil condition
2. What are some of your goals in life as a small farmer?
   - Education, availability of resources or assistance
   - Organize cooperative for purchasing seed, fertilizer
   - Better purchasing power
   - Decent housing
   - Education for children
   - Home improvement
   - Better water system
   - Sewage
   - Money
   - Good husband
   - Adequate insurance
   - Good hogs
   - Good chickens
   - Good home
   - Good living

Asking small farmers about their needs posed quite a problem. The above list includes the thinking of specialists, state directors of FHA, Cooperative Extension, and Soil Conservation Service.

In general I have not changed my opinion. Many small farm operators do not know their own plight. They do not know and understand the problems which will not allow them to escape the perpetuation of poverty.

Previous work—There are many studies relative to the small farm operator. Knowledge of them is increasing very rapidly. Most of the results are limited. However, if successful programs were expanded within particular states, other states might adopt these practices in working with small farmers. Perhaps more could be reached through model programs.

A study in Texas showed that a program properly administered increased livestock production 25%; while crop production was increased 6%.

A TVA report showed that 54% of the small farmers had eighth grade education or less, while only 24% of the larger farmers had eighth grade or less education.

We have a small and part-time farmers program in Arkansas. Our results are somewhat limited. The series of synthesis papers prepared by research functional networks for the Southern Rural Development Center and Miscissippi State University showed work with communication and attitudes in small farm programs in the following colleges and universities: Fort Valley State College, University of Florida, University of Kentucky, Prairie View A&M University, Tennessee State University, and Virginia State College.

The Missouri study showed tremendous progress with the small farm operator.

Ray Marshall and Allen Thompson writing on "Status and Prospects of Small Farmers in the South" stated that farmers who had off-farm labor were more stable than those who did not have this source of labor.

Shumacher in "Small is Beautiful" stated that small-scale operations, no matter how numerous, are always less likely to be harmful to the natural environment than large scale, simply because their individual force is small in relation to the recuperative forces of nature.

The needs among small farmers for capital, equipment, homes, education for their children, and markets are about the same as anyone's whether they be small, medium, or large farmers.

I have fulfilled my topic: "Needs and Aspirations of People on Small Farms." That is the topic you gave me. If you will bear with me a few minutes I would like to talk about my own topic as it relates to the small farm operator.

If we have been told that we are our brother's keeper. "We then that are strong ought to bear the infirmities of the weak, and not to please ourselves. Let everyone of us please his neighbor for his good to edification" (Romans 15:1-2). Also, "And who knowth whether thou art come to the Kingdom for such a time as this?" (Esther 4:14). The leader of the small farmers needs to act and teach brotherhood among them.

Leadership—We need to reach back to the leaders—the small farmer needs leaders who will be

his brother's keeper. The small farmer needs a special kind of leader, just as the special educator is needed to serve the handicapped and disadvantaged students.

> Give me your tired, your poor,
> Your huddled masses yearning to breathe free,
> The wretched refuge of your teeming shore,
> Send these, the homeless, tempest-tossed, to me:
> I lift my lamp beside the golden door.
>
> *(Inscription on the base of the Statue of Liberty.)*

LEADERSHIP

Abounding FAITH in the importance of the work.
Infinite TACT in meeting trying situations.
Unlimited PATIENCE in overcoming community inertia.
Endless GOOD NATURE in face of all trials.
A saving SENSE OF HUMOR when nothing else will meet the situation.
A large VISION of the work to be done.
Ability to LOSE GRACEFULLY and to REBOUND after each defeat.
Indomitable COURAGE in standing for the right.
A grim DETERMINATION to see the work put through to its completion.
A contagious ENTHUSIASM that inspires local leadership.
Unquenchable OPTIMISM in spite of all discouragements.
Unreserved BELIEF IN THE IMPORTANCE OF THE FARM FAMILY to the commonwealth.

(Dean Alfred Vivian, Ohio State University, 12 attributes of a leader)

Let us reason together, each of you under the sound of my voice has an education. How well would you do without money? The first thing you wanted to do was get a job for money. Money without enough education to manage it would not last long.

How can we best assist the small farmer? The late President John Kennedy stated that geography has made us neighbors and history has made us friends.

Financial assistance, local, State, or Federal should be provided so that the farmers could be paid a stipend to attend a 4- to 6-week short course where they would be taught to work together, bringing them together they would become neighborly, having much in common. Each yesterday would become history, which in time would enable them to become friends with confidence, understanding of each other's problems. This group of small farmers would serve as a nucleus to organize co-ops and associations for buying supplies and working together on various production and marketing functions.

Organization and Implementation

The training and organization would allow small farmers to buy equipment large enough to plant and harvest crops for several small farmers.

The selection of the same variety, planted at the same time would allow for harvesting within the same period and therefore result in large volumes for transport to distant markets.

Breeding livestock within the same period would lend itself to vaccination, castration, dehorning, and marketing at the same time. Production would then be by the masses of people rather than mass production by a few.

Brother's keeper—Since the small farm operator could become more knowledgeable of proper crops and livestock for market, he may very well begin to sell to or with the large farmer who becomes his neighbor especially since their farms are adjacent.

Models and demonstration farms will become visible as small farmers practice their well-taught lessons. The sociologists may teach them to work cooperatively.

Though late in years for many, the small farmer for the first time could have the proper combination—education, money, and supervision by the leader.

The small farmer as a group can become a commercial producer and very secure with close supervision and training workshops held annually.

Training must be for both on- and off-farm employment. This group of small farmers can contribute to the economy of America and abroad.

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Goal-Setting and Training for Work with Small Farmers

How to Determine Goals, Values, and Aspirations of Small Farm Families

JOHN S. HOLIK
Extension Sociologist
University of Missouri at Columbia

• There is great diversity among small farms in the U.S. The variety of crops and livestock in agricultural production, the physical characteristics of agricultural land in different parts of the country, and the social characteristics of farm families, plus their reasons for living on the farm are all variables which interact to create this great diversity among small farm families. For sometime we have recognized differences in characteristics of full-time and part-time farmers. In a recent Michigan study, Thompson and Hepp identified three major types of farmers with less than $20,000 gross annual sales of farm products (7). Thompson and Hepp classified small farmers in Michigan as:

1. Full-time farmers under 65 years of age working less than 100 days a year in nonfarm employment.
2. Two types of part-time farmers.
   a. Rural residents—those persons under 65 years of age who are working more than 100 days a year in nonfarm employment with annual farm sales of less than $2,000.
   b. Supplemental income farmers—those who are under 65 years of age, working more than 100 days a year in nonfarm employment, but with annual farm sales between $2,500 and $20,000. Three more categories of small farmers could be added by recognizing the above 65-year age farm operators.

Powers and Gilbert, commenting on the Michigan study state, "With regard to what 'rural residents' and 'supplemental income' farmers say it is still impossible to determine the extent to which the farmers are working to support their farms and would prefer to spend more time on the farm if it were economically feasible" (3). In other words, Powers and Gilbert are saying that an important consideration in regard to Small Farm policy is the goals of the farm family. Two recent Missouri studies shed some light on the goals of families living on farms (2).

Lionberger, *et al*, identified six types of rural residents in Missouri.

Committed farmers are most impressed by the feeling of accomplishment derived from growing and harvesting crops. These people strongly feel that it isn't the money you make in farming that is important. Rather, it is the wonderful life of country living.

Reluctant residents believe every man should have a right and privilege to use part of the earth for which they are willing to hock their souls. They like living close to nature but strongly believe they are isolated from what is going on in the world, especially the cultural activities. They say a person can be a real farmer without owning a lot of land.

Nature lovers extol farming as a vehicle for being close to and in harmony with nature while making a living. Most important for nature lovers is seeing crops grow and the sense of accomplishment that comes at harvest time. They strongly believe living on a farm should not be for making a lot of money.

Guests of the country like being away from the city, but at the same time show little commitment to farming. They like "piddling" around, getting exercise in the open, fresh air, and doing their own thing, away from the urban hassle while being able to earn a living. They derive satisfaction out of always having something to do and feel that at the end of their working career they can make a living by renting out the land they own.

Child 'raisers' are primarily interested in a special environment in which the children can get close to nature and learn how God meant things to be. They believe the farm provides the proper environment for children to learn responsibility and respect others. These people are not committed to farming as an occupation. They see it as a hobby and their primary job is doing something else. They believe every person should have the right and privilege to the personal use of some part of the earth and the benefits which accrue from landownership.

Agrarian cornerstones believe that farming is the best way to learn how God really meant things to be. For them, farming is the best part of "old time" religion. As they see it: "It reminds people how dependent they are on nature which, like religion, reminds one how dependent we are on God." They believe that cultivation of the land is part of the original destiny of man. To them, living in the country is what is wonderful, not the livelihood one makes on the farm.

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In cooperation with the rural sociologists at the University of Missouri, Columbia, William Kurtz and Bernie Lewis (1) undertook a study of small forest landowners. Kurtz and Lewis were interested in identifying the motivation which guides forest landowners to adopt certain management practices and reject others. As a result of their study, Kurtz and Lewis identified six types of small forest landowners.

Timber aestheticist considers forest land as an aesthetic entity. For him, activities such as timber harvesting are acceptable as long as they are compatible with and help maintain the overall beauty of the forest. This type of person is reluctant to harvest trees from around his home and lets livestock graze among the trees. He tries to maintain the wildlife population of his land as he feels this adds to the natural beauty of his farm. The timber aestheticist is primarily motivated toward preservation of his forest.

Range-wildlife type of forest landowner's primary concern is maximization of income from beef cattle and other pasture dependent operations. This type of person is content to let his forest grow and to graze it where possible. He is interested in wildlife for hunting purposes and enjoys the beauty of the trees and being close to nature. He doesn't see much economic value in the forest and would prefer to clear away the trees.

Timber-wildlife individual perceives the forest as a source of continual timber supplies and believes that with proper care and attention his woodlot can remain productive indefinitely. He views his forest land as an emergency "bank account," if that option be necessary. This type of farmer looks upon grazing the forest with disdain. He appreciates the presence of wildlife but doesn't go out of his way to encourage its increase on the land.

Range exclusive person's major concern is to maximize available pasture land for immediate annual financial returns from grazing, instead of the long-run income from forestry.

Timber restricted individuals recognize the utility of the wood resource. He is most unsatisfied with the long time span of management activities required to maximize returns from forest production even though he expresses an awareness of the value of preserving forest lands for future use.

Timber urgency type of forest landowners believe strongly that if we are to maintain a continual supply of wood products, our forest lands need sound and effective management. He is acutely aware of the natural tendency toward forest exploitation, particularly in the form of liquidation of forest lands for pasture. His attitudes reflect an element of urgency with respect to the future of forest lands. This type of person is decidedly future oriented.

It is apparent from the Missouri studies that families living on farms are more interested in the social, instead of the economic benefits of rural living. Other researchers have also studied the goals, values, and aspirations of farmers. Smith and Martin found that affluent cattle ranchers in the West were more interested in maintaining family ownership of the land than in the maximization of incomes (6). Rushing reported that affluent wheat and pea farmers were more interested in social than economic goals (4). When asked, "What was important to them?" 22% of the responses indicated good health, 14% said children's success, and 14% indicated economic goals.

Most recently, Powers and Gilbert (3) have described some of the research results from a number of studies which analyzed the goals of farmers in many settings. Briefly, according to Powers and Gilbert, Gasson found in England that three different samples of farmers most frequently mentioned independence (being one's own boss or freedom to arrange and control work) as the most important benefit from farming. These English farmers emphasized attachment to the land, the way of life and work itself, as being more important than gaining prestige and recognition as a farmer or making a maximum income. When comparing large vs small farmers, Gasson found that smaller farmers placed higher value on making a reasonable living, while large farmers emphasized income, and maximizing and expanding the business. Studies by Barnes (1976), Logsdon (1976), and Bertrand (1967) indicate that American farmers hold similar values.

After reviewing the findings of Thompson and Hepp, 1976; Metzger, 1974; Flanders and Metzger, 1977; Wardle and Boisvert, 1975; Powers and Gilbert make the following statement: "It has been argued that small farmer responses such as, 'farm environment is the best place to raise children and farming allows a high degree of independence' are mere rationalizations for their lack of material success in agriculture. While this could be true to a certain extent, we assume that a large percentage of these responses reflect commitment to values other than purely monetary ones" (8).

In 1972, a survey to discover the needs and characteristics of small farmers was undertaken as the initial step in implementing the Small Farm Family Extension Program. In the 1972 Missouri survey in Wayne and Polk Counties, 706 small farmers responded to questions about their future plans (5). Forty-five percent of the 415 full-time farmers indicated that they wanted to expand their farming operations. About 30% of the full-time farmers indicated they were planning to retire during the next 5 years; the rest said they wanted to continue at the same level of operation. Of those working off the farm, (68% who worked less than 100 days off the farm and 86% who held full-time off-the-farm jobs) said they wanted to expand their farming operations. Thus, over half of the

respondents, who wanted to expand their farming operations, were working either at part-time or full-time off-the-farm jobs.

Before we expanded the Extension Small Farm Family Program from 11 to 33 counties in 1976, we conducted another survey of small farmers. The 1976 survey of 8,600 small farm families showed a significant drop in the percentage of those who wanted to expand their farming operations. Only 35% said they wanted to expand their farming operations, while 47% indicated they wanted to keep operations at about the same level. Interestingly, only 39% of 8,600 sample families in the study were full-time farmers and in 61% of the cases, either the wife or the husband had an off-the-farm job.

Review of the research literature indicates that small farm families are a diverse group in regard to their social and economic characteristics. Their goals and aspirations are also rather heterogenous. It is evident that small farm families place rather low value on rationally and objectively defined economic goals. They place much more emphasis upon the social qualities perceived to be obtainable by living on the farm. Thus, the literature on small farmers suggests that extension workers might be more effective by identifying the individual family's goals and aspirations.

In the Missouri Small Farm Family Program, we perceived the identification of a family's goals as a process. We also recognize that the process varies for each education assistant and each family.

After discussing the question with most of the professional and paraprofessional Extension staff members working in the Small Farm Family Program, some of the features of the process these people have used to identify the families goals can be described.

Initially, the objective of the Missouri program was to help small farm families increase their income from farming. The education assistants were instructed to start working with the families who wanted to expand their farming operations. Thus, this approach may have influenced the goal identification process. Even though in 1976 the family resource management and home gardening components were added to the program, the basic method of identifying the family's goals has not changed.

The education assistants indicate that the most important first step in working with the farm family is to earn their respect, confidence, and trust. This usually is achieved after several visits on the farm. The initial visit is usually devoted to explaining the program to the prospective participant family and ascertaining their interest in the program. Occasionally, some family will make it known to the education assistant that they would like to have his assistance on a particular problem.

The education assistants agree that you cannot start by asking the families to describe their goals and aspirations. Instead, they say that while they are visiting with the farm operator they find the opportunity to ask such questions as, "What do you plan on planting in this field next year?" or "How many sows do you plan on farrowing this fall?" The education assistants claim that the word "goals," is interpreted by farm people as follows: "This is what I am going to do and once started, it means I'm going to do it." Asking the farm operator about what he plans on planting in a field next year may, according to the education assistants, bring the response "What do you think I ought to do?" "You kind of got to let them take the lead." In this manner, the education assistant leads into a discussion of the farmer's plans for the coming year and the reasons for wanting, for example, to plant so much corn.

Other education assistants ask what are some of your wants or what are some of the things your family would like to have in the future? One assistant said, "If the man says the wife wants a new stove, you had darned well better help him get the wife a new stove regardless of the fact that he could remodel the whole kitchen in a year or two if he spent his money on a better boar."

The Extension field staff indicated that few, if any, of the small farm families have what might be labeled long-range goals. Instead, they have plans or wants which they hope to achieve this year or sometime during the winter or summer, such as raising more corn, building a new farrowing house, if they make enough money from the sale of the present crop of feeder pigs.

Most of the time during the first few visits with the farm family, the education assistants discuss with them such questions as how many pigs per sow they farrowed or the yield of their crops. This is another way they lead into a discussion of what livestock or cropping practices they use and what the Extension recommended practices are. From this they proceed to discuss their immediate plans. Some of the education assistants have been rather successful in asking the families about their production costs for specific enterprises. Assistants use this as a technique for introducing the benefits of recordkeeping.

The last two winters have been cold and thus, many of the small farm families have been interested in cutting their utility bills or in some cases, discussing how to accumulate enough money to pay these bills. This has provided an opportunity for education assistants to help the family plan for the more efficient utilization of their resources. It has also provided opportunities for the education assistants to earn the families' trust and respect by helping them reduce heating costs. Furthermore, many families asked the education assistant for further help in improving their farming operations.

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In several counties, the education assistants have been successful in using a Program Enrollment Form (appendix A) or a Family's Future Plans Form (appendix B) as a mechanism to initiate a discussion concerning family goals. Again, these forms have not been used on the first visit with the family, although there have been some exceptions, especially with some families who have recently moved into the area and are new to farming. Many of these newcomers to farming are quite sophisticated and anxious to lay out a plan for their farming operation.

In several of our areas, the farm management specialist in charge of the program has attempted to train and stimulate the education assistant to interest some families in developing a written formal plan for achieving their goals. These plans are modeled after the Missouri Balanced Farming Program approach (called Farm and Home Unit Approach in other states). This approach involves the education assistants, sitting down with the whole family and listing the family's goals and resources. This is followed with an analysis of alternative farming enterprise projections for reaching their goals. Thus far this has met with little or no success. The education assistants don't like to push the pencil. Also, most families haven't been interested in spending the necessary time to formally analyze their farming operations. You might want to discuss this with Jerry Freeze, who is here with you. I am sure he is willing to share his experiences.

In Missouri, we believe that the key in identifying the small farm family's goals lies in the education assistant s ability to sense the family's value orientations. Their ability to perceive what is important to the family is the key in the process of helping the family identify objectives that they can reasonably expect to achieve in their farming activities. Hence, one of the first things the education assistants is taught is how to use their powers of observation (eyes and ears) in identifying what is important to the family. They are instructed to look for something they can use for the purpose of giving the family a compliment on the very first visit. This can be anything from "You sure have a beautiful view of the countryside from your front door," to "Your Hereford cows look well fed, you must be doing a good job of feeding them." The responses to complimentary statements often stimulate the farm operator to describe some of the things he and his family are proud of. These responses often contain many cues related to the families aspirations and values.

Once the family has expressed an interest in becoming a Small Farm Family Program participant, the education assistant suggests a tour of the farm so that he might become familiar with its general characteristics. The more family members involved in the tour the greater are the opportunties for family members to comment about their accomplishments, desires, hopes, and plans. The farm tour is an excellent mechanism for learning about what is important to the family. It also creates an opportunity for the education assistant to inquire about what the farm operator's crop and livestock plans are for the coming year. Thus, as one education assistant said, "You 'kinda' got to let them take the lead."

In the Missouri Small Farm Family Program, we make every effort to hire, as education assistants, people who are good communicators and know how to get along with others. In our preservice training programs, we discuss the art of effective listening. The importance of using the eyes and ears more than the month is explained in the training sessions. Furthermore, in these effective listening discussions the education assistants and training staff share their experiences about how they discover what some of their friends and neighbors were striving to achieve. The sharing of experiences generally initiate a discussion of people's goals and values. In this manner, the education assistants learn what to look and listen for when interacting with small farm families in order to discover the family's goals and aspirations.

In summary, in Missouri, the Small Farm Family Program education assistants indicate that the way to identify the families goals and aspirations is a process.

The steps in the process are as follows:

1. Getting acquainted with the family.
2. Seeking cues to the family's goals, values, and aspirations through the effective use of the eyes and ears.
3. Earning the family's respect, confidence, and trust.
4. Asking the family to describe their plans for the forthcoming season.
5. Sharing ideas concerning family goals.

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APPENDIX A

OUR FAMILY'S FUTURE PLANS

Good managers strive to make progress toward achieving their goals. To be able to do this, the manager must have his goals clearly in mind. Read the list of statements or goals below. Some may be similiar to what you have in mind. Rate the following goals according to their importance to you. Check three that are most important, and three that are least important to you.

	Most Important	Least Important
1. To work full-time off the farm, but still make all the income we can.	_____	_____
2. To eventually quit off-farm job and farm full time.	_____	_____
3. To make more income from our farm.	_____	_____
4. To operate a modern farm business that will provide us a comparable wage as we could earn in other jobs.	_____	_____
5. To develop a profitable farm business to which I can retire.	_____	_____
6. To quit farming, learn a skill or trade and work full time off-farm.	_____	_____
7. To be recognized as a good farmer in our community.	_____	_____
8. To have an attractive productive farm of which one can be proud.	_____	_____
9. To provide a better living for our farmily.	_____	_____
10. To be completely, or nearly, free of debt.	_____	_____

List below those things your family will need to do in the next few years to achieve your goals.

1. _____
2. _____
3. _____
4. _____

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APPENDIX B

SMALL FARM PROGRAM PARTICIPATION AGREEMENT

We are interested in participating in the Scotland-Schuyler County Small Farm program.

We agree to work closely with the Extension educational assistant and other Extension specialist to:

1. Discuss family financial situation in confidence with specialist including net worth.
2. Keep farm records and family living expenses.
3. Study our present farm resources and determine where we might make improvements.
4. Prepare a farm plan based on our goals and available resources.
5. Put our plan in operation in keeping with our skills and finances.
6. Attend group meetings and tours designed for families in the Small Farm program.
7. Evaluate the progress we make each year, and decide what we want to accomplish the following year.

Each year our family and the Extension specialist can evaluate this agreement. We can cancel this agreement at any time.

As long as this agreement is satisfactory to both our family and university Extension, we may participate in this program for a maximum of 3 years. After that time, we will still have the opportunity to attend scheduled Extension educational meetings.

_____

Signature of applicant and applicant's wife

_____

Address

Application approved ___ Disapproved ___

By County Extension Council

_____ _____

Date Chairman Extension Council

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Training Paraprofessionals in North Carolina

DALTON H. McAFEE
Assistant Administrator for Extension Programs
North Carolina A & T State University
and Chairman of the North Carolina Small Farm
Task Force

• The paraprofessional concept had its inception with the poverty programs of the sixties. The rationale was that paraprofessionals could be used to expand educational services to low-income audiences.

Federal legislation of 1964 through 1967 provided much of the financial means for employing paraprofessionals throughout the country. The result has been a rapid escalation in the number of aides whose salaries are financed totally or jointly from Federal funds and private foundations. According to Tanner (8), about 40% of all programs using paraprofessionals got their start in the middle sixties. Even today there are a number of organizations using paraprofessionals as a means of reaching those audiences left behind.

Along with employment of paraprofessionals comes supervision, training, and evaluation. Gudridge (3), in describing the inadequacy of paraprofessional aide training programs, maintained that the typical aide receives no training before employment. It was pointed out that fewer than half of the aides, even after appointment, participated in in-service training programs.

In recent years, organized training programs have taken a variety of forms. Programs ranging from formalized sessions to incidental on-the-job training have been developed. The degree of formality as viewed by Brotherson and Johnson (2) is determined by those conducting the program as well as the techniques, and procedures employed.

Robb (7) strongly believes that "as with any program or product of high quality, an aide program can survive only to the extent that it grows and improves." Realistic objectives of an effective paraprofessional aide program should deal with:

1. Reinforcement and assurance of a steady supply of aides.
2. Consistency and continuity in the program.
3. Adequate in-service training and continuous evaluation.

To be successful in the execution of duties, the paraprofessional must have some form of in-service training, clear directions from the professional and adequate resources and facilities. The best program of in-service training is one which has proved effective, but more importantly, best meets the needs of the agency and individuals to be served.

To be meaningful, the in-service training program should be designed by those who will be involved and affected by the results. Howard Brennen, 1969 (6), indicated that a balanced training program should deal with psychology, human development, and teaching techniques. Harrison (4) implied that while Brennen's stated areas of staff development are important, special attention should be given to necessary technical competencies agencies expect of paraprofessionals. Primary focus should be on the individual relations.

Most writers expressed the view that the success or failure of an in-service training program rests largely with the supervisor since the degree of responsibility assumed by the paraprofessional is determined by the supervisor. The degree of formality attached to the training program will rely heavily on the degree of sophistication of the supervisor (1). Harrison's (4) views implied that to be effective, an in-service program should include both formal and informal aspects of training.

Gudridge, Brotherson and Johnson, Robb, Brennen, and Harrison (2, 3, 4, 6, 7) seemed to agree that adequate in-service training for paraprofessionals is essential. They implied that a balanced training program should be both formal and informal and consist of psychology, human development, teaching techniques, and technical competencies. These elements best describe the North Carolina Paraprofessional Training Program.

TRAINING PROGRAM FOR AGRICULTURAL TECHNICIANS

During the past 5 years, the North Carolina Agricultural Extension Service at A&T State University cooperating with North Carolina State University developed and implemented the Farm Opportunities Program which has provided educational and technical assistance to about 1,500 small, low-income farmers as a part of its purpose to help people identify and solve their farm, home, and community problems through the use of on-the-farm

assistance executed by paraprofessionals called "agricultural technicians."

There are 23 agricultural technicians working intensively with an average of 34 marginal income farmers in 18 of the 100 counties in the State of North Carolina. These agricultural technicians are working very diligently with each of the program families to increase: family income; use of appropriate agricultural technology and managerial techniques; knowledge and use of public agencies; participation in community activities; and skill in setting and working for achievable family goals.

Overall responsibility for the Farm Opportunities Program rests with a person located at A&T State University known as the area program coordinator, agriculture.

Overall responsibility for the Farm Opportunities Program at the county level rests with the county extension chairman. The chairman designates a member of his staff to serve as supervising agent for the agricultural technicians.

District chairmen and district program leaders are important in the organizational structure. North Carolina is divided into seven extension districts, each containing from 14 to 17 counties. District chairmen spend most of their time maintaining and improving the extension organizational structure. They are particularly concerned with recruiting and training personnel, getting more money needed to operate extension programs at the county level, and maintaining good relations with county commissioners and other groups. District program leaders are assigned to one of the four broad areas in which extension operates—agriculture, home economics, 4-H, and community resource development. Their job is to see that all counties in the district have a strong program in each of these areas.

Other important persons in the organizational structure are the extension specialists, who are usually located at A&T State University or N.C. State University. Their job is to provide county staff members with the training they need in specific subject areas, such as soil fertility, swine housing, or corn production.

To accomplish the Farm Opportunities Program objectives, agricultural technicians are exposed to three types of training. They include (1) orientation training, (2) in-service training, and (3) on-the-job training.

Orientation Training

Agricultural technicians come to the job with a wide range of experiences and background. The nature and degree of training will vary accordingly. The orientation training program acquaints agricultural technicians with:

1. The organization and philosophy of the North Carolina Agricultural Extension Service.
2. County extension staff and programs.
3. The county agricultural situation.
4. The county small farm situation.
5. The overall function of the Farm Opportunities Program.
6. The role in relation to the county small farm program.
7. Appropriate extension materials and publications.
8. The work of other agencies and organizations.
9. Time management techniques.
10. Identification and recruitment techniques.

The supervising agents are responsible for conducting this type of orientation training for agricultural technicians at the county level.

In-Service Training

It is the policy of the North Carolina Agricultural Extension Service to provide at least one statewide in-service training for agricultural technicians on an annual basis. The reluctance of the Extension Service in North Carolina to provide more statewide in-service training for agricultural technicians is because supervising agents are responsible for providing ongoing in-service training for paraprofessionals. However, it must be noted that statewide in-service training does provide an opportunity for agricultural technicians to upgrade their level of competency in certain technical areas of agriculture.

To determine the content of a statewide training program for technicians, a training needs survey is sent to each agricultural technician and supervising agent for completion (appendix A). This training needs survey identifies technicians' areas of emphasis. Training needs are compiled, analyzed, and prioritized. Based upon the subject matter content indicated from the training needs survey, certain subject-matter specialists are requested to conduct portions of the statewide in-service training for technicians (appendix B). Information presented at these in-service training sessions are compiled in notebook form for agricultural technicians use.

In the past, in-service training areas for agricultural technicians included the following:

1. Managing the farm business
   a. records, budgets, planning
   b. financing and mechanizing
2. Managing the soils
   a. soil management: tillage, soil conservation, and cropping systems
3. Crop management and test procedures, demonstrations
4. Swine management
5. Managing pests
   a. field crops
   b. vegetables
   c. weeds, field crops
   d. weeds, vegetables
   e. plant diseases

6. Managing the house
   a. winterizing the home
   b. modernizing the home
   c. inexpensive home landscaping
7. Teaching tools and techniques
   a. photography
   b. radio, news
8. Interpersonal relations

In addition to the training areas mentioned above, in-service training for agricultural technicians also includes:

1. How to make a contact visit.
2. How to make a home visit.
3. How to conduct a group meeting.
4. How to make a family plan.
5. How to teach adults.
6. How to report accomplishments (more detailed information for training agricultural technicians can be found in appendix C).

On-the-Job Training

Considering the importance and usefulness of the orientation and in-service training, the most meaningful and effective training for agricultural technicians in North Carolina is on-the-job training provided by county agents with specialist support. Agricultural technicians learn to perform certain crop and livestock production practices. These include soil testing, liming practices, castration and vaccination practices, etc. (appendix D).

Agricultural technicians also learn how to plan and conduct result and method demonstrations which are essential in accelerating the adoption process, make simple machinery repairs, as well as, farm building construction. It must be mentioned that a sizable number of agricultural technicians come to the job with many useful skills.

Evaluation of Training

At some point you must evaluate the effectiveness of the training. The success of training which should be planned with definite goals in mind can be measured against these goals. In North Carolina, we ask: Did the agricultural technicians assimilate the information presented? Did he acquire the skills needed to do the job? How can the supervisor judge?

Observing the work done probably gives the supervising agent the best information about the effectiveness of the training. Accompanying an agricultural technician on a home visit, observing him give a demonstration, and listening, while he teaches a small farmer, reveals how effective the training was and suggests areas that need strengthening.

References

1. Brighton, Howard, *Utilizing Teacher Aides Indifferentiated Staffing*, Michigan: Pendell Publishing Company, 1972.
2. Brotherson, Mary Lou, and Mary Ann Johnson, *Teacher Aide Handbook*, Illinois: Interstate Printers & Publishers, 1971.
3. Gudridge, Beatrice, *Paraprofessionals in Schools*, National School Public Relations Association, February 1972.
4. Harrison, Raymond E., *The Selection Orientation, and Use of Teacher Aides*, California: G. W. School Supply, 1967.
5. Hornburger, Jane M., . . . *So You Have an Aide*, Delaware: Wilmington, 1969.
6. Ohio State University, *An Evaluation of State Urban Education Programs for Disadvantaged Students in District 24 - New York City*. Eric Systems, Eric Current Awareness Service.
7. Robb, Melvin H., *Teacher Assistants*, Ohio: Charles E. Merrill, 1969.
8. Tanner, Laurel, and Daniel Tanner, "The Teacher Aide: A National Study of Confusion," *Educational Leadership*, May 1969.

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APPENDIX A

Training Needs Survey Form*

Listed below are spaces provided to indicate your training needs.

Please list your 1st, 2nd, and 3rd choices:

1st choice: _____

2nd choice: _____

3rd choice: _____

Others:

1. _____

2. _____

3. _____

4. _____

*Please return to this office no later than November 15th.

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APPENDIX B

IN-SERVICE TRAINING
FARM OPPORTUNITIES PROGRAM PERSONNEL
March 8-10, 1978
Jane S. McKimmon Center, Raleigh, N.C.

Wednesday, March 8
Dr. Dick Smith, Presiding

8:30 a.m. . . . . GREETINGS AND INTRODUCTIONS

8:45 a.m. . . . . MANAGING THE FARM BUSINESS
Records, Budgets, Planning - Dr. Lionel Williamson and
Financing and Mechanizing - Mr. James Allgood, Extension Economists

10:15 a.m. . . . . BREAK

10:30 a.m. . . . . Continuation: MANAGING THE FARM BUSINESS

12:00 noon . . . . . LUNCH

Afternoon Session
Mr. S. N. Shelton, Presiding

1:00 p.m. . . . . MANAGING THE SOILS
Selected Topics About Fertilizer and Lime Use - Mr. Paul Lilly,
Extension Soils Specialist

2:00 p.m. . . . . Soil Management: Tillage, Soil Conservation and
Cropping Systems - Dr. G. C. Naderman, Jr., Extension
Soil Science Specialist

3:00 p.m. . . . . BREAK

3:30 p.m. . . . . CROP MANAGEMENT AND TEST PROCEDURES, DEMONSTRATIONS
Dr. Guy Jones, In-Charge, Crop Science

4:30 p.m. . . . . SWINE MANAGEMENT
Dr. D. G. Lewis, Area Swine Specialist

5:00 p.m. . . . . ADJOURN

Thursday, March 9
Mrs. Jo Patterson, Presiding

8:00 a.m. . . . . MANAGING PESTS
Field Crops -- Mr. T. N. Hunt, Entomology Specialist

8:40 a.m. . . . . Vegetables -- Dr. K. A. Sorensen, Entomology Specialist

9:20 a.m. . . . . Plant Diseases --- Dr. Harry Duncan,
In-Charge, Extension Plant Pathology

10:10 a.m. . . . . BREAK

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10:30 a.m. . . . . Weeds, Field Crops --- Dr. Fate Thompson, Specialist, Crop Science

11:10 a.m. . . . . Weeds, Vegetables --- Walt Skroch, Specialist, Horticulture

12:00 noon . . . . . LUNCHEON

Afternoon Session
Dr. W. G. Andrews, Presiding

1:30 p.m. . . . . MANAGING THE HOUSE
Winterizing the Home --- Dr. Anne Sweaney, Specialist, Housing and House Furnishings

3:00 p.m. . . . . BREAK

3:30 p.m. . . . . Modernizing the Home --- Everette Proske, Specialist, Housing and House Furnishings

5:00 p.m. . . . . ADJOURN

Friday, March 10
Dr. Dalton H. McAfee, Presiding

8:30 a.m. . . . . Inexpensive Home Landscaping --- Mr. Tom Flowers Specialist, Horticulture

9:30 a.m. . . . . TEACHING TOOLS AND TECHNIQUES
Photography --- Mr. Nicholas Bright, Photographer II and Mr. Jerry Rogers, In-Charge, Visual Aids

10:20 a.m. . . . . Radio, News --- Mr. Tom Byrd In-Charge, Press, Radio and TV

10:30 a.m. . . . . BREAK

11:00 a.m. . . . . SHOW AND TELL
Caswell County - Mr. Henry Badgett
Robeson County - Mr. Martin L. Brewington

11:30 a.m. . . . . ISSUES AND CONCERNS
Moderator - Mr. D. C. Harwood, Jr. Assistant Director

11:45 a.m. . . . . REMARKS
Dr. Daniel Godfrey, Assistant Director

12:00 noon . . . . . ADJOURN

APPENDIX C

Your Job as an Agricultural Technician

The success of the Farm Opportunities Program will depend a great deal on your attitude toward the job. You must:

1. Possess a sincere desire to help people.
2. Believe that the job can be done.
3. Be willing to work under difficult situations.
4. Be willing to accept and follow instructions of the supervising agent.

Working Relationship

1. You will be a part of an extension team. The local extension agents and you will work together closely.
2. Your primary role is to help. Extension agents perform necessary fieldwork required to assist a specific number of small farmers.
3. You should always discuss your ideas with the supervising agent and get his suggestions before working with a farmer.
4. You should invite your supervising agent to review progress and make suggestions on what should be done. He will be glad to assist you.
5. You should serve as a communications link between the farmer and the local extension office.
6. You should show farmers how to perform tasks necessary to carry out recommended practices.
7. Remember, your job is to provide educational assistance. You are not an extra hired hand to do the farmer's work.

Getting Started

1. You should work with small farmers on an individual basis.
2. Start with a simple problem based on the needs of the farmer as he sees them.
3. Select one enterprise and with the assistance of the supervising agent develop a partial budget with the cooperation of the farmer. Some farmers may be ready to develop one or more complete budgets. However, under no circumstances should you move the farmer faster than he is ready to go.
4. Remember that practices or result demonstrations may be the best way to start. This would be particularly true where the farmer's resources are unusually limited. Examples include:
   a. Soil testing and following recommended practices.
   b. Using recommended varieties of seed.
   c. Carrying out a good insect and weed control program.
   d. Harvesting at the right time.
   e. Using good breeding stock.
   f. Providing adequate farrowing pens for sows.
   g. Feeding properly balanced rations to all livestock.
   h. Maintaining adequate sanitation and parasite control for all livestock.
5. Collect as much information as you can about the farmer, his resources, and his goals (use Form I and II, Benchmark Data for Farm Opportunities Program, Appendices B & C). This may or may not be done in a formal discussion. Information collected should be placed in the office file and held in the strictest confidence. Personal data about the farmer should be collected on benchmark form I and II.
6. The following information is needed:
   a. Inventory of resources
      (1) Land
      (2) Allotments
      (3) Capital
      (4) Limitations imposed by the farmer
   b. Enterprises to be considered
   c. Other information
      (1) Farm map
      (2) Farm type
      (3) Products grown
      (4) Production system
      (5) Production costs
      (6) Farm insurance
      (7) Net worth
7. The supervising agent should be provided with this information. During the fall and winter a complete farm plan should be developed. More than one plan may have to be developed before it is acceptable to the farmer. Once the farm plan has been accepted it becomes the goal toward which the farmer will work.
8. You will need to learn about other governmental agencies and groups and the assistance they can provide the farmer. These include:
   a. Soil Conservation Service
   b. Agricultural Stabilization and Conservation Service
   c. Farmers Home Administration
   d. Production Credit Association
   e. N.C. Employment Security Commission
   f. Department of Social Services
   g. Vocational agricultural teachers
   h. Home economics teachers
   i. Local service clubs
   j. Local farm organizations
9. You will need to become familiar with employment opportunities in the area. In many cases, farmers may need to explore off-farm job opportunities as a means of increasing their income.

10. Farm income and expense records are important. However, you will only be concerned with helping the farmer keep those records that relate to the enterprise budgeted.

    You may assist the farmer in keeping other farm records that he may see a need for and is ready to do.
11. At the end of the year you will assist the supervising agent and others to measure progress and accomplishments. This will include:
    a. Program and the methods used.
    b. Changes made by farmers.
        (1) Physical changes that can be observed
        (2) Resource used and/or output
        (3) Changes in practices adopted
    c. Economic
        (1) Farm income
        (2) Net worth
        (3) Consumption by family
    d. Ability to manage well.
    e. Skill in planning.
    f. Developing of the family
        (1) Ability to work together
        (2) Satisfaction of life

First Farm Visit

1. You and the supervising agent will need to do the following as a team:
    a. Identify farmers to be visited.
    b. Decide on the best time of day to make first visit.
    c. Decide on the objective of each visit.
    d. Decide on possible approaches that might be helpful to establish a working relationship with each farmer.
2. *Introduce yourself.* Tell him your name. Find out his name. Use it. If you already know his name, explain how you know. This will give you something to talk about. Tell him why you came. Your purpose must be clear. You don't want him to think you are a bill collector or investigator.
3. *Be friendly and sincere.* Smile and be natural. You could pretend you are calling on your favorite neighbor.
4. *Talk about things in general.* Although you may be ready to go right to work, to the farmer you may still be a stranger. Your purpose may still be unclear. Also, the farmer may not be ready for what you have been thinking about for some time. Winning his confidence is your first goal.
5. *Don't rush.* Take your time. Try to put the farmer at ease. Encourage him to talk about what he is doing and what he would like to do. He may give you some leads on ways you can help him.
6. *People respond to praise.* Find something to make a favorable comment about. Never make a remark that is critical of what he is doing.
7. *Look for leads.* The key to determining followup work will depend on how alert you are to possible problems the farmer has that you can help him with. He will respond to assistance that promises to solve his immediate problem.
8. *Return visits.* When the farmer shows he wants you to come back to help him, he has shown interest in the program. On your next visit you will begin to help him improve his farming operation.
9. *You will need to remember these things*:
    a. It is a privilege to go into the home of another person.
    b. Keep a positive, happy approach.
    c. Respect the farmer's values even though you hope to change some of them someday.
    d. The farmer must trust you before you can teach.
    e. Keep a farmer's secrets. Don't tell anyone else anything you learn about them.
    f. Listen carefully to get information. That is better than asking personal questions.
    g. Begin with what the farmer is interested in.
    h. Never write anything down about the farm family in front of them. The exception would be when you are working on a particular problem that requires writing.
10. *Reports.* After you leave the farm, complete your Report of Farm Visits. What you see and hear is important to record, but the main purpose of your first visit is to get acquainted.
11. Turn in your report to the supervising agent.
12. *Other farm visits.* You will make many return visits to learn more about the farmer and his family, their needs, interests, and desires. At the same time, you will be helping the farmer with his farming operations. These visits should be scheduled as often as necessary to get the job done.
13. *Tips for success.* Here is what two agricultural technicians said about working with small farmers:

    "Don't destroy client's confidence. Be polite and respect the small farmer's position. Visit frequently and indicate an interest in his situation. Explain how the client's situation may be improved. Make him knowledgeable of assistance available from Extension and other sources. Gain his confidence through demonstrations. Point out the client's strong points and encourage him."

    "Don't be the expert, perform your role as an agricultural technician. Give him a helping hand. If he is harvesting tobacco, help him pass some sticks into the barn. If his hogs are

out, help him get them back into the pen. Do not criticize his weak points, instead, offer suggestions."

Working Visit

1. The working visit must always seem informal. But, you must always arrange and plan it carefully. On most of these visits you will be working alone.
2. You and the farmer should plan ahead for each working visit. Set objectives for each visit. Confer with supervising agent for suggestions and recommendations.
3. Decide together with the farmer on what you will do.
4. Decide when the next visit will be, the day, and the hour. He may want to write this down or mark a calendar. Be sure he understands.
5. The farmer should agree to have whatever equipment, materials, or supplies needed for the job to be done.
6. You should let him know you expect him to do his part. *Be sure he can.*
7. Let him do the work. You should show and help. There may be many things to teach; point them out as you go along, but remember that he can't learn it all at one time.
8. When the job has been completed be sure to praise the farmer.
9. Write up the visit when you leave the farm.
10. Turn in your report to your supervising agent.

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APPENDIX D

FORM 2

FARM OPPORTUNITIES PROGRAM

Evaluation Information

Cooperator's Name _____

Mailing Address _____

County _____ Phone Number _____

I. CROP PRODUCTION METHODS

Crop Number Refers to Crops Listed in Section B

G = Good U = Unknown
F = Fair N = Does Not Apply
P = Poor

	Crop #1	Crop #2	Crop #3	Crop #4	Crop #5	Crop #6	Crop #7	Crop #8	Crop #9	
*1. Soil Testing										
2. Land Preparation										
*3. Liming Practices										
*4. Planting Date										
5. Variety Planted										
6. Planting Rate										
*7. Fertilizer Use										
8. Irrigation Practices										
*9. Weed Control										
*10. Insect Control										
*11. Disease Control										
12. Harvesting Date										
13. Harvesting Methods										
*14. Record Keeping Methods										
15. Buying Practices										
16. Selling Practices										

COMMENTS: (On specific practices, production and marketing problems - if known, provide details on any of the above 16 items, particularly those where improvement is needed).

*Required information.

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II. LIVESTOCK PRODUCTION METHODS

G = Good U = Unknown
F = Fair N = Does Not Apply
P = Poor

	Dairy	Swine	Cow-Calf	Poultry	Other				
*1. Quality of Breeding Males									
*2. Quality of Breeding Females									
3. Quality of Off-spring									
*4. Breeding or Farrowing Schedule									
*5. Castration Practices									
*6. Vaccination Practices									
7. Identification Methods									
*8. Internal Parasite Control									
*9. External Parasite Control									
*10. Protein Supplement Practices									
11. Production Records									
12. Calving-Farrowing Conditions									
13. Facilities to Separate Age Groups									
14. Buying Practices									
15. Selling Practices									

COMMENTS: (On specific practices, production and marketing problems.) Supply details available on those points where improvement is needed.

III. INVENTORY OF BUILDINGS, MACHINERY, EQUIPMENT

	Condition of Structure (Check One)			
1. Buildings, Pens, Fences, Sheds	Good	Fair	Poor	Value ($)

TOTAL _____

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2. Machinery and Equipment	Condition (Check One) Good	Fair	Poor	Value ($)

TOTAL _____

IV. FARM INCOME - EXPENSE SUMMARY
(from information in FORM 1)

*A. Income

*1. Crops Sold $ _____

*2. Livestock and Livestock Products Sold _____

*3. Poultry and Poultry Products Sold _____

*4. Government Payments _____

*5. Other Farm Income (specify) _____ _____

_____ _____

_____ _____

TOTAL $ _____

*B. Operating Expense
(from FORM 1, page 3) $ _____

*C. Cash Income $ _____

V. DEBT STRUCTURE

Type of Loan	Bank or Agency	Amount Outstanding	Repayment Provisions
Land			
Farm Equipment			
Farm Operating			
Home Mortgage			
Time Payments			
a. House			
b. Household goods			
c. Cars & trucks			

COMMENTS: (Availability of credit, annual or monthly payments on principal and interest, interest rates, etc.)

_____

_____

_____

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VI. FAMILY LIVING IMPROVEMENTS

	Yes	No
*A. Does home have electricity?	____	____
*B. Is heating adequate?	____	____
*C. Is cold running water piped into home?	____	____
*D. Is hot running water in home?	____	____
*E. Is water supply adequate?	____	____
*F. Does family have a refrigerator?	____	____
*G. Does family have a freezer?	____	____
*H. Does family have a telephone?	____	____
*I. Does family have a radio?	____	____
*J. Does family have a TV?	____	____
*K. Does family have sewing machine in working order?	____	____
*L. Is home landscaped?	____	____

*M. Number of running automobiles?

_____

N. Year, model of automobiles

_____ _____ _____ _____

*O. Age and condition of dwelling

1. Age _____ *2. Condition (check one)

*a. Beyond repair ____

*b. In need of major improvements ____

*c. Good, sound structure ____

3. Number of rooms_____

VII. OTHER

A. Off-Farm Employment

	Type of Work	*Avg. No. Hours Worked per Week
*Farmer	_____	_____
*Wife	_____	_____
*Children	_____	_____

B. Does Cooperator Receive:	Yes	No
Welfare	____	____
Social Security	____	____
Food Stamps	____	____
Other _____	____	____

C. Government Agencies Worked with Farmer

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Agency	What Was Done

D. Participation in Community Organizations

Organization	Kind of Participation (Member, Leadership Role)

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APPENDIX E

Components of a County Orientation Training Package for Technicians

Orientation Training Components

1. Acquaint agricultural technicians with the organization and philosophy of the North Carolina Agricultural Extension Service.
2. Acquaint agricultural technicians with county Extension staff and programs.
3. Acquaint agricultural technicians with county agricultural situation.
4. Acquaint agricultural technicians with the county small farm situation.
5. Acquaint agricultural technicians with the overall function of the Farm Opportunities Program.
6. Acquaint agricultural technicians with their role in relation to the county small farm program.
7. Acquaint agricultural technicians with appropriate Extension materials and publications.
8. Acquaint agricultural technicians with the work of other agencies and organizations.
9. Acquaint agricultural technicians with time management techniques.
10. Acquaint agricultural technicians with identification and recruitment techniques.

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Training Small Farm Family Educational Assistants

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• The small farm family program in Missouri is conducted cooperatively and through instructions from the University of Missouri at Columbia and Lincoln University.

This is a program that all staff in the area must support if it is to be successful. The area director explained the small farm family program in the beginning to all the staff, stressing its importance to our area, and its people. All the staff were to be a part of the training program underway with my assignment serving as training coordinator.

There was excellent cooperation and support of the program. Everyone was most cooperative with the training effort and have spent several days in the field helping educational assistants with problems.

Seven of the eight educational assistants have worked 2 years. They are doing an excellent job and have a real desire to help small farmers. One said, "I've never had a job in my life that I've enjoyed so much".

Extension Set-up in Missouri

In visiting different states and talking with agents from many states at our National Association of County Agricultural Agents, there are no two states that have the same Extension plan. It seems appropriate that we look at the Missouri plan, so you will understand later the part small farm educational assistants play in this plan. Each department at the university has state specialists that make available the latest research results and train area specialists. There are 21 program areas in the State. The number of counties in each area varies from 3 to 10. The number of specialists varies depending on the number of counties and established needs of the area. I work in the Lake of the Ozarks area and DOW area. Since being headquartered in the Lake of the Ozarks area and most of the training is done in that area, I'll be using it as an example in this talk. There are five counties in the area. Thirteen area specialists and two area administrators are headquartered in the different counties. Six of the specialists are in agriculture, three in home economics, two in youth work, one in community development, and one in business and industry. Agriculture specialists include two in farm management, two in livestock, one in agronomy, and one in dairy. The dairy specialist and a livestock specialist are located in my headquarters. One educational assistant was employed in each county and my headquarters county was the training center. The agricultural specialists have provided 70% of the training of the educational assistants.

Qualifications for Employment As Educational Assistants

1. Familiarity with local farming conditions and have at least 10 years farming or farm related experience.
2. Interest in helping families have a better life.
3. Ability to communicate, have patience with and an understanding for small farmers and their problems.
4. Skill to motivate people to want to do better.
5. Dependable and not easily discouraged.
6. Respected by neighbors and small farmers.
7. Ability to size up problems and possible solutions.
8. Willingness to devote full time to the program including irregular hours for families working off the farm and for meetings.
9. Willingness to acquire new skills and knowledge necessary for completing needed reports, farm planning and recordkeeping.
10. Have dependable transportation.

Extension Council Approval

In some counties several applicants responded for the education assistants job. The Extension Council had a committee that reviewed the applications and narrowed them to two or three that were presented to the total council. I was involved with the committee and had an opportunity to make a recommendation of my

first, second, and third choices to the council. I also believed I could accept any of the applicants recommended to the council. Quite often they knew some things about the applicant that did not show up on the application. The two or three selected to meet the council were interviewed and one was selected for the job. The university would employ them only upon council approval.

In one or two counties no applications were turned in for the job. In these cases, we started beating the bushes trying to find someone we believed qualified, would do a good job, and would be approved by the council. Council members, coworkers, and commercial farmers were real helpful in locating possible prospects.

What Are Educational Assistants Like

In Missouri, they are from 45 to 60 years old. They own their own farm, but are not fully employed on their farm. Most have lived on the farm all their life, a couple were in an outside business while farming. All are married and have raised a family, all but one have grandchildren. Most have a high school education but no college training. In fact, Missouri will not approve anyone with college training. All had worked with Extension in some way. Some had served as Extension Council members. In fact, two had to resign from the council to take the job. Three are members of their county ASCS Committees. All are well known and liked in their community. They love people and get a lot of satisfaction out of helping small farmers. Each has from 30 to 60 cooperators that they work with on a one-to-one basis.

Educational assistants are employees of the University of Missouri. When the program started 2 years ago starting pay for an educational assistant II was $2.63 per hour for 40 hours per week. They receive 15¢ a mile for car allowance and pay for expenses when outside their headquarters county. Both time and travel starts when they leave home. Their home is their office. They could use their headquarters county Extension Office but they believe it is more convenient to consider their home as their office. Present pay is $3.40 per hour.

Educational Tools and Information for Assistants

With their practical experience and training we needed to get more tools and educational information in their hands. This information is used as reference material and material for future training meetings (appendix A). Tools included such items as a soil sampling tube, Instamatic camera, slide film and flash attachment, slide viewer, small metal file, and tape recorder and tapes. A tape was mailed each week from the university called "An Update on Agriculture." There is something made available on agricultural outlook each week. Educational assistants listen to the tapes quite often as they drive from farm to farm. Used tapes are returned to the university by mail.

Several have taken good slide pictures of different farm operations. If a cooperator was planning to do something new on which the educational assistant had a slide set he would use this for guidance. If the farmer wanted to actually see the idea in practice the educational assistant would make an appointment and they would visit the farm where the practice had been adopted or the cooperator might just go on his own.

Slides are also used at group meetings to show improved practices, at civic clubs, and at Extension council meetings to help explain what the small farm family program is and how it is progressing.

Educational assistants are encouraged to see that soil samples are taken on all fields by each of their cooperators. A folder is developed on each family and placed in the metal file for use during future visits and for planning.

Planning Training Needs

Objective: To increase the opportunities and quality of living for families living on small farms. To do this, the educational assistants must teach families the skills and knowledge necessary to improve management of their resources, reduce costs and increase income.

Since other areas of the State already had a small farm family program, we took advantage of their experience in getting ours underway. Also, a survey was completed in each area. From experience and this survey of small farm problems and needs a training program was worked out.

Those responsible for training are constantly alert to questions asked and problems educational assistants discuss at their meetings. Frequently educational assistants are asked what help they need or what areas of subject matter they feel uncomfortable about discussing. We also use a form with several things listed which asks them to rate 1, 2, or 3 as to their training needs (appendix B). We also find out from an area advisory committee the problems small farmers encounter from day to day. This committee is made up of two people (husband and wife) from each county in the area. They meet twice a year, and are replaced each year. Educational assistants select the families and see that they get to the meetings. Training is set up for the educational assistants while the agriculture designees meet with those on the advisory committee.

From these sources training needs are established. The small farm family designees decide on what problems the home economist designee is to give training or coordinate training. The agriculture designee is responsible to train or coordinate training on all other needed subjects. A major portion of the training is built around the needs as discovered by the educational assistants as they work with cooperating families.

State Conferences

There are about 40 educational assistants scattered over the State. A two-day State conference is held each year. Programs are worked out by a committee to try to meet the needs of the educational assistants. An important benefit is meeting with other educational assistants from over the State. Some have been in the program since 1971, all with varied experiences and training. Educational assistants are like some of us, they like to hear what is being done in other areas, how others work with their cooperators, and what is being done on cooperators' farms. One year the State was divided and district conferences held which did not prove to be effective. The next year's conferences were dropped completely. Several educational assistants expressed their concern and needs and now the university is planning to hold a State conference again in 1979.

Training Educational Assistants

Training meetings for educational assistants were held initially each day for a week, then once a week for a year, then 1 day every 2 weeks the second year. Plans are to continue the 1 day every 2 weeks arrangement the third year.

The educational assistants are given an opportunity to ask questions and discuss problems at the beginning of each training meeting. Local specialists drop by for a few minutes to see if they may help with questions or problems.

Organization and Content of Training Program for Educational Assistants

Policy and Extension Pilosophy—Marcus Holman and Leon Chilton, Area Directors.

Procedure for Establishing a Small Farm Program—Ed Wiggins, State Farm Management Specialist, and Charlotte George, Family Economics and Management Specialist.

Working with People—John Holik, State Extension Sociologist (How do you motivate people? How do you sell ideas? How do you work with people? The diffusion and adoption process. The individual change process. Check your technique in working with people.) (appendix C).

Subject Matter

Soils and Crops—Wendell Roberts, Area Agronomy Specialist (How to take a soil sample, explaining soil test reports, and fertilization and weed control demonstrations.)

Dairy—Harold Storck, Area Dairy Specialist. (Use of DHIA records, need for AI sires, dairy records, dairy rations, what's on a feed tag, forage testing and diseases and parasites of dairy cattle.)

Livestock—O. L. Robertson, Area Livestock Specialist. (Beef cow-calf program. Using performance tested sires, diseases and parasites of cattle and hogs, feeds and rations for cattle and hogs, producing hogs on the small farm, and use of growth regulators. State specialists and representatives of serum companies also participated in the program.)

Farm Management—Bill Buehler and Jerry Freeze, Area Farm Management Specialists. Jack Graham, Business Specialist, discussed the principles of managing a business.

Planning a Farm

Training sessions to plan a farm were done on a farm after studying the basics in a classroom situjtion. A 70-acre farm with a beef cow-calf enterprise was used. All area specialists were asked to help in this training. We decided to consider three possible enterprises, beef, feeder pigs and dairy. The educational assistants were divided into groups with some considering each enterprise. The agronomy specialist provided information to plan crop needs for each enterprise.

In planning a farm we follow the same steps as you do. First, we inventory the resources—land, labor, capital, and management. Family goals are established. Problems are identified and itemized. The cropping and livestock systems are summarized, both present and revised. Income and profitability of enterprise combinations and "cash flow" associated with each are evaluated. We choose a long-run plan for development with the short-run plans included. The farm map is revised to comply with future changes. Plans are made to adjust the farmstead toward an efficient arrangement. We try to retain some flexibility so that changes can be made as needed from time to time.

An upland dairy farm was used later for training purposes in which educational assistants walked over the farm and planned the hay, silage, and pasture needs for the 60-cow dairy herd. A map of the farm was drawn, which included all fields identified by size, soil test results, and yields in past years. Feed needs were determined by use of our farm management forms. Fields were selected for different crops and rotations set up where needed. Production has increased on this farm, but the farmer hasn't been able to get pastures established as planned. Silage crops have been very productive.

This is about the extent of our training the first 2 years. There are other factors that we need to think about. Most of these farms are small, seldom with more than one enterprise. With training of the educational assistants, it was hoped they could sit down and push a pencil when needed. Some caught on better than others. Some just flat said they were not being paid enough to push a pencil. We have not been pleased with the results.

Future plans are to take another farm and let the educational assistants plan it in a manner similar to those in the past. All area specialists will be involved and several complete plans will be developed. After that, each educational assistant will be asked to select one of his cooperators on which to complete a farm plan. On my next visit with ths educational assistants we plan to visit one of their cooperators and work out a plan together. We believe this will give them the information needed and confidence that they can do a plan.

Horticulture—Wendell Roberts, Agronomy Specialist; David Trinklein, Horticulture Specialist; George Enslow, Horticulture Specialist; Lincoln University. (Information presented on every phase of a family garden.) A gardening newsletter is published and mailed from Lincoln University. Information on postage stamp gardens was given by Susan Carr, a local garden enthusiast. At least two garden tours were held each year visiting the best gardens in town. A demonstration on pruning grapes and grafting fruit trees was presented by the Fruit Station in the area. At least three farmers markets have been developed where farmers can sell their surplus or produce grown exclusively for the market. Paul DeBerry, head of the market keeps the educational assistants informed as to how the market is doing and produce needed.

Beekeeping—Beekeeping is an enterprise on which there is little information. A local doctor was very helpful in sharing his experience with this enterprise.

Tours

Tours are probably the most useful educational method for training educational assistants. After about 2 hours in a classroom situation we found that the educational assistants were ready to do something different. We found that fitting tours in with the subject matter presentation was very effective. Tours included several feeder pig farms, portable feeding floors, purebred hog producers, purebred cattle producers, and swine farrowing facilities. Educational assistants visited the National Feeder Pig Show, toured the Cooperative Feeder Pig Sale, MFA Tele-Auction, and community auctions. They toured the University Research Centers at Mt. Vernon and Columbia and visited MFA's Demonstration Farm at Marshall. They also attended special livestock days at the university.

Demonstrations

Demonstrations have been used from the beginning of the Agricultural Extension Service. They are still just as effective as they were then. One that really went over big for us was the use of RAL-GRO on calves. The results were publicized. Educational assistants say there were thousands of calves treated as a result of the demonstration. Fertilizer demonstrations are still useful. Weed spraying demonstrations are paying off on pastures and crops. Use of the scanoprobe to check pregnancy of cows and sows has gone over big. A local livestock association purchased the instrument and made it available for educational use. Vaccinating and castrating demonstrations have been useful in the program.

Related Agencies

Educational assistants were encouraged to become knowledgeable of what information and services other agencies have to offer. We asked representatives of ASCS, SCS, and FHA to attend a training session and explain their program. Also, the State Wildlife Conservation Service and the County Health Department reported ways they might help families. Money is always a problem, so Production Credit and Federal Land Bank and local banks came and explained their loaning policies.

Home Economics

Donna Plummer, Cheryl Reitmeyer, Nancy Lewis, and Pat Wages gave leadership to this phase of the program. They stressed the home phase of the small farm family program. They did not plan to make home economists out of the educational assistants, rather to make them aware of information that was available. Each assistant built his own file from instructions on "File it and Find it". Information was given on such subjects as setting up a business center in the home, testing pressure cooker gauges, purchasing automobile and life insurance, family living expenses, basic nutrition and nutritional needs, food preservation, and storage of vegetables and fruit.

A real problem is training educational assistants to work with their cooperators in setting goals. One of the home economists came up with a form that has been helpful. These families do not think in goals, they think about the number of sows I plan to get next year, or the things I want.

Special emphasis was placed on saving energy in the home. Winterizing homes was a big project in which different materials were demonstrated. Homes were toured to see what could be done to reduce their heating costs. They also gave information on home economics clubs, what they were, how to organize, and where existing clubs were located.

Educational assistants encouraged young people in the families they worked with to enroll in 4-H. The youth specialist explained the program, where clubs were located, and the requirements to start a new club.

There are two main points to keep in mind with area staff. First, area specialists should be asked for assistance far enough ahead so they can fit it in with their other work, this means you should have alternate topics in mind at all times. Second, stress the need for keeping the instruction on a level that educational assistants can understand. Use teaching methods such that they will learn the material well enough to discuss and use it with their cooperators.

Educational Activities

I plan to spend at least 2 full days a year working with each educational assistant. All area staff members are available to help them with particular problems. They know the area staff is their back-up for problem solutions or needed information. The State staff is also available when needed. Educational assistants are asked several times a year to show slides they have taken and tell about cooperator's accomplishments.

Educational assistants write a newsletter each month which is mailed to their cooperators.

All cooperators' names are placed on the appropriate mailing lists to receive subject matter and newsletters from area specialists.

Complete maps are made showing the names and location of each of their cooperators. A copy is provided for my use.

Educational assistants carry business cards which have proven very useful in getting acquainted with new families and for use in leaving messages for those not at home when they make regular visits.

Reporting

A report is made each month on accomplishments made by cooperating families (appendix D). Also a progress report is completed each year. A benchmark was established at the beginning of the program which is used to show progress from the time a small farmer enters the program.

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APPENDIX A

SUPPLIES USED FOR THE SMALL FARM FAMILY PROGRAM
in the
LAKE OF THE OZARKS AND DOW AREAS IN MISSOURI

Mo. Farm Planning Handbook and Forms Used for Planning Purposes

Missouri Feeder Pig Manual M73

Missouri Swine Confinement Manual M74

Hog Information Please (National Hog Farmer Book)

Missouri Swine Housing and Equipment Handbook

Missouri Sheep Producers Manual

Missouri Sheep Handbook on Housing and Equipment

Missouri Beef Housing & Equipment Handbook

Dairy Cattle Fertility & Sterility - Dairy Cattle Feed Guide - Dairy Cattle Herd Health Guide - Hoards Dairyman

Missouri Dairy Housing and Equipment Handbook

Massachusetts Dairy Goat Book

University of Missouri, Columbia Guide Book

Home Economics Guide Book

Missouri Livestock Forage Manual

Beekeeping in the Midwest

Missouri Looseleaf Record Book

Missouri Blue Book (Record Book) Expense & Income

Missouri Green Book (Record Book) Inventory & Depreciation

Crop Yield Records (Soil Test Results & Yields)

1978 Insect Control Recommendation Handbook

Small Farm Notebooks - Has 15 Guides, written for the Small Farm Program, Some written by Educational Assistants

Camera

Tape Recorder

Soil Sampling Tube & Auger

Slide Viewer

Small Metal File

A slide projector and screen is available for each Educational Assistant to use

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OTHER BOOKS THAT WERE FOUND TO BE USEFUL WERE:

The Merck Veterinary Manual

Anchor Veterinary Handbook

The Stockman's Handbook - Ensminger

Pork Industry Handbook

A copy was placed in each county office for all staff to use. Individual guide sheets & bulletins are available for Ed. Assistants to use with their Cooperators.

APPENDIX B

PLEASE INDICATE THE SUBJECT MATTER YOU WOULD LIKE TO HAVE MORE ON IN 1979

Place either a 1, 2, or 3 in the blank indicating your needs. If you place a 1, this indicates you need a lot of information right away, 2 indicates not as great a need, 3 indicates the least need. This will help in planning our training meetings and will help you get the subject matter you feel you need help on. Think about the questions your people are asking and the subject matter you feel less confident in, when it comes to answering the questions.

PLANNING CROPPING SYSTEMS

_____ Choosing the cropping system for the farm.

_____ Estimating crop prices for long-range planning.

CROP BUDGETS- (Planning the costs of production)

_____ Corn Budgets

_____ Grain Sorghum Budgets

_____ Wheat Budgets

_____ Corn Silage Budgets

_____ Sargo Silage Budgets

_____ Alfalfa Hay Budgets

_____ Mixed Hay & Grass Hay Budgets

_____ Pasture Budgets

_____ Fertilizer Recommedation for different crops

LIVESTOCK BUDGETS - (Planning the cost of production to start a herd or enlarge one)

_____ Beef Catle _____ Feeder Pigs _____ Sheep
_____ Hogs - Fed out _____ Dairy Cattle _____ Horses

FARM RECORDS

___ Missouri loose beef record books.

___ Crop records

___ Records for individual enterprize

___ Livestock Records

MISCELLANEOUS

_____ New investments & financing

_____ On the Farm Demonstrations

_____ More on Farmers Resources and Their Use

_____ What can a farmer do to save money?

_____ More on What Extension can do for my cooperators

_____ Steps in establishing family goals

_____ Developing a long range farm plan

_____ Making a farm plan based on goals,abilities, & resources

_____ Money Management

_____ How to make a successful farm and home visit

_____ Rabbits

_____ Bees

_____ Related Agencies & What they can Offer

_____ Information on Improvements in Production Practices

_____ How do we access the current situation

_____ More on Treating Health Problems & Care of Livestock

_____ Production groups (Such as Pork Producers Association, etc.,)

_____ Developing a short time farm plan

_____ Putting the plans into operation

_____ Principles in Farm Management

_____ Techniques of working with people

_____ 4-H Club Information

_____ Dairy Goats

GARDENS

_____ Soil Tests & Fertilization

_____ Controlling Weeds

_____ Marketing Garden Produce

_____ Varieties to Plant

_____ Controlling Insects

DEVELOP RATIONS _____ Dairy

_____ Hogs

_____

_____ Beef Cattle

_____ Sheep

_____

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HOME ECONOMICS

_____ Car Insurance
_____ Health Insurance
_____ Remodeling a Home
_____ Everyday Gyps
_____ A Plan for Spending
_____ Use of Pressure Cookers
_____ Food & Nutrition
_____ Interior Design

MACHINERY & EQUIPMENT

_____ Machinery Size Selection

LIVESTOCK BUILDINGS

_____ Dairy
_____ Raising Baby Calves
_____ Feed Cost Cutting Ideas

_____ Life Insurance
_____ Building a New Home
_____ Truth in Lending
_____ Techniques of the Door-to-Door Salsman
_____ Keeping Important Papers
_____ How Home Economics Clubs Operate
_____ Clothing & Textiles
_____ Household Equipment

_____ Repairs to Machinery & Equipment

_____ Hogs _____ Beef Cattle
_____ Machinery & Labor Cost Cutting Ideas
_____ Finance & Interest Cost Cutting Ideas

LIST ANY OTHER THINGS YOU CAN THINK OF:

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APPENDIX C

CHECK YOUR TECHNIQUE IN WORKING WITH FARM PEOPLE

(Written for Professional Staff, but can be adapted for Educational Assistants)

Following are suggestions on the psychology of working closely with farm people as observed by Township Agricultural Agents in the Michigan Farm and Home Development Program. This is not new information, but it can be a helpful reminder. I suggest that you read it carefully, if possible at a staff conference. Lay it aside for a month. Then read it over again, noting how many of the suggestions you have put to use.

1. Show interest in whatever the farm family is doing and whatever seems to be uppermost in their minds at the moment.
2. Find something the farmer is doint well and praise him for it.
3. Find where he is making progress and help him.
4. Play down yourself (the agents) as an expert. Talk up to folks or at least as man to man rather than talking down to them.
5. Particulary for the older farmer do your best to make him feel that you need him and his knowledge and experience. (How do you manage to make your _____ _____ look so good?)
6. Try to give the impression that you want to help keep cost down and/or income up. For example, it is possible to build a homemade, functional and efficient milking parlor for less than the cost of materials for a commercially built parlor.
7. Try to remember accomplishments as well as names of children in the family.
8. Don't be afraid to get your boots muddy.
9. Don't be afraid to get your hands dirty.
10. Dress according to the occasion. (Neat and clean, but not overdressed.)
11. Be extremely strict about not divulging confidential information to others.
12. Call the farmer by his first name and encourage him to use your first name.
13. Point out experiences of local people to support recommedations.
14. Never tell a farmer that his method is wrong or out-moded when the same results can be obtained by saying "Here is what a lot of folks are finding works quite successfully."
15. Be right 99.9% of the time, but when you are wrong, admit it without alibis.

APPENDIX D

SMALL FARM ASSISTANTS' MONTHLY WORKSHEET

MONTH_____EDUCATIONAL ASSISTANT_____

1. ____Number of Families participating at start of month. ____Families added.

NAME ADDRESS COUNTY MAILING LIST

2. ____Families graduated or dropped from active list (use back of sheet if needed)

3. _____ Total Families participating as active cooperators at end of month.

4. _____ Total number of farm & home visits made to participating families during month.

5. _____ Number of telephone calls made & received to participating families during the month. Count as a Contact.

6. _____ Other contacts made during month, prospects, and those asking agriculture and family living questions.

7. _____ Total number of people visited.

8. _____ Number of meetings and _____ attendance at group meetings you held during the month.

9. _____ Referrals made to Extension Staff or other Agencies.

NAME OF AGENCY AGENCY PERSON REFERRED TO COOPERATOR INVOLVED

10. List training received and meetings attended other thatn regular weekly training session:_____

11. ____ Number of participating families attending educational activities during the month.

ACTIVITY NAMES

12. List changes, improvements, etc., achieved by participating families during the month.

13. List comments, information/supplies needed, etc.,_____

***TO BE TURNED IN AT THE END OF EACH MONTH FOR PREPARATION OF AREA MONTHLY REPORTS

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Economically Oriented Tools or Concepts That Can Be Used With Limited Resource Farmers

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• A current survey in 15 Southern states[1] showed the following characteristics of farmers enrolled in those states' small farm programs:

- One-third have less than an eighth-grade education.
- 50 percent own less than 60 acres of land and 75% less than 125 acres.
- This audience makes greater economic progress by improving existing enterprises than by changing to new enterprises.
- 47 percent have no off-farm work.
- 20 percent are over 65 years of age.
- 50 percent are between 46 and 64 years of age.

The same survey showed the following as characteristics of the Extension people who have the major responsibility to teach this audience:

- 152 of the 187 are paraprofessionals.
- 75 percent had completed only 12 years of education.
- 7 percent had completed college.

This audience and this set of technicians clearly are not able to learn such economic concepts or tools as marginal analysis, product-product relationship or linear programming as it is normally taught at the college level. But these economic concepts and tools can be used in the educational process with the limited resource farmers if these paraprofessionals teach them through practical application methods.

Below are listed many economically oriented tools or concepts that can be effectively used by technicians to teach limited resource farmers:

Business planning and evaluation oriented:
- Complete budget
- Whole farm planning
- Fixed costs
- Sunk costs
- Product-product relationship
- Maximize returns to most limiting resources
- Tax management
- Marketing strategies
- Rent versus buy
- Don't expand beyond management's ability
- Partial budget
- Marginal cost-marginal revenue
- Variable costs
- Factor-factor relationship
- Record use
- Break-even analysis
- What is an economic unit?
- Estate planning
- Insurance
- Costs of new versus used equipment

Investments or credit oriented:
- Cash flow
- Net worth
- Concept of renting money
- Profit and loss
- Financial ratios
- Debt planning

Production oriented:
- Use high income producing crops
- Develop or expand markets
- Test soils
- Grow rather than buy bigger
- Most profitable livestock rations
- Optimum machinery size

Although not called by their professional titles, most of these concepts have been taught by Extension since its beginning. The complete budget was one of the earliest economic tools used by Extension. In many cases, the tool was used by the professional; the results were conveyed to the farmer. In other instances, I am sure, the professional took the budget to the farmer or in fact showed him how to prepare a budget. However, I suspect that few farmers in those early audiences, because of their background and education, learned how to prepare a budget for themselves. The present limited resource farmer audience is much like the audience encountered by the early Extension agent. So in many instances today, traditional techniques must be used.

[1]Orden, David, Preliminary data from "Inventory and Evaluation of Cooperative Extension Programs in the South Aimed at Small and Part Time Farmers." 1978, V.P.I. & S.U.

The professional will have to use the tool and convey the results to the paraprofessional; who in turn will deliver it to the farmer. In other cases, the paraprofessional can learn to prepare an accurate budget and, therefore, cut out one step. The ideal situation is when the limited resource farmer can use these economic tools with no assistance.

Technicians can learn to prepare and use partial budgets. Most limited resource farmers can also learn how to prepare and use them, but I would guess that few will do it by themselves. However, if the technicians can demonstrate their usefulness by continually using them with farmers, the farmers will recognize their value in decision making and ask for help when they are considering changes.

Linear programming is one of the most sophisticated tools listed above. But it is being used. In Virginia a study was conducted in two counties[2] to determine the potential change in net income if limited resource farmers would expand their existing enterprises to their optimum, using only the resources presently on the farm. Figure 1 shows the results of that study.

The figure shows that the 98 farms varied widely relative to how their present returns approximated their potential returns. More than 84% had an opportunity to increase their income by merely adjusting and improving existing enterprises. This study did not estimate the potential gain by introducing new enterprises.

The joint TVA/land-grant university rapid adjustment program, test demonstration program, and resource management program have each used linear programming successfully for 15 years with small farm operators. So considerable experience shows us that this tool can be used today as a guide to direct the technicians' efforts toward increasing farm income. However, I question whether the cost-benefit ratio associated with using linear programming would justify programming more than a few "typical" farms as a guide to individual farm planning.

"PLAN," a cash flow computer program on the nationwide Computerized Management Network (CMN), is being used by extension agents in Virginia to help technicians advise farmers relative to the advisability of making new investments. For example, one farm plan prepared with this program showed the monthly cash flow associated with a limited resource farmer building new facilities and expanding his sow herd from 5 to 40 sows. The program output indicated that if the farmer could match the management assumed in the budgets, he could profitably make the change and also meet the cash flow associated with it.

[2]Orden, David, "Small Farm Programs; Implications From a Study in Virginia," Research Bulletin 135, October, 1978, V.P.I. & S.U.

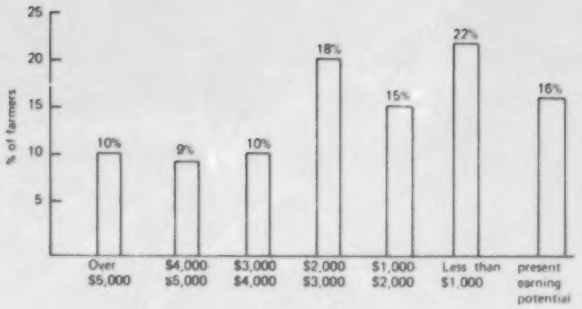

Figure 1. The distribution of surveyed small farmers by increased income possible from achieving their potential returns in Floyd and Brunswick Counties, Virginia, 1976

The concept of striving to maximize the returns to the most limited resources is one of the first economic ideas taught to Virginia's technicians. High quality cropland is generally the most limiting resource on limited resource farms. So the technicians are told at their first training session to strive to intensify crop production. This leads directly into product-product relationship. What crop? What is the difference in net returns from strawberries vs. corn vs. pasture on the same acre of land? Here an economic principle is taught via practice recommendations.

Marginal analysis has been taught in Virginia in many forms—soil tests and fertilizer recommendations, feeding protein supplement to cows which had been fed only corn. Spray, castrate, and vaccinate feeder pigs to get them into higher paying feeder pig sales, expand enterprises, and so forth.

The above illustrations are tools used without teaching the farmer the economic concept. Some tools or concepts can be taught in such a manner that these farmers can put them to use on their own. Factor-product relationship and marginal cost-marginal revenue are two. There are few farmers who cannot learn that one can add fertilizer until the last dollar invested equals the value of the last added bushel of corn. Or that a $1 hormone implant in a steer can return $18 worth of additional gain. Technicians should be taught to teach in these terms. "Look, Mr. F., this will cost you $15, but you will get $27 added returns by doing it." Teach added cost-added returns. It's easy, it's understandable, and it's effective.

Recordkeeping and the use of farm records should be encouraged for all farmers. Many will be very reluctant.

Since a high proportion of this audience is older, estate planning should be included in the educational program. The technician cannot teach it, but an extension specialist can meet with groups of farmers to discuss this topic.

As economists, we have at least two responsibilities toward this audience. One is to teach them how to use the tools and concepts which they are capable of using. The other is to teach them the values of other tools and concepts that we or technicians can use to improve their income or satisfaction. The only way we will strive toward those goals is to expand the above list and aggressively start preparing educational programs to fit the expected level of attainment.

The Role of Paraprofessionals Working With Limited Resource Farmers

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• More than half of the 2.83 million farmers had sales of less than $10,000 in 1974. These same farmers accounted for only 5% of cash receipts from farming and 8% of realized net farm income. Generally, the educational needs of this group of farmers are somewhat different than those of larger commercial farmers. Their capital and often their labor resources are limited, and their managerial skills may be less than desirable. However, most of the technical information they need has already been identified and put to use on larger farms.

Educational programs for limited resource farmers require a different mix of experience and know-how than is required for serving commercial agriculture. For them, Extension's challenge is to adapt the educational program to their needs and to put more emphasis on individual husbandry and management skills in the use of known practices. More skill is needed in working with and motivating people in contrast to knowledge of scientific agriculture. Many limited resource families require individual advice and counseling concerning both farm and nonfarm opportunities.

The concept of county and home agents providing professional leadership, combined with paraprofessionals working directly with farm families, has successfully emerged as a pattern for serving the educational needs of limited resource farmers. Thus, where possible, skilled paraprofessionals should be added to the regular Extension staff at the county level to help serve the needs of limited resource farmers. One important function of a paraprofessional is to help families identify problems on the farm and in the home, then make a plan for solving these problems. The plan may call for such things as expanding present enterprises, adding new enterprises, securing a farm loan, renting more land, or taking a part-time job. Indirectly the plan may call for the assistance from other agricultural agencies or public agencies. The paraprofessional can do an excellent job in coordinating the activities of all of these groups and agencies because he has already established good working relationship with the family who has his confidence.

Extension education programs must often go far beyond simple delivery of new knowledge to farmers. Families must often be taught how to incorporate new technology into an already complex farming system.

The paraprofessional can work more effectively with farm families if he is taught how to help farmers analyze and evaluate the costs and returns of adopting new equipment, cultural practices, tillage systems, insect control, and many others (see Appendix). Also he must be able to account for variable weather conditions, fuel supply, fertilizer, market conditions and quality of resources when working with farmers.

How do Extension agents and specialists get the paraprofessional involved with a farm family that is selected as a limited resource family? Many of us would agree that one of the first things that

should be done is to "determine the needs of the family," or said in a different way, "to appraise their resources."

In the early training program of a paraprofessional there are several ideas that I have used that have proven successful in working with limited resource farmers that I call the "ten steps to successful planning." These ideas should give an insight on how to be successful in really getting involved with a farm family.

Ten Steps to Successful Planning

1. *Enterprise budgets*—Prepare enterprise budgets for those crops or livestock currently being produced on the farm. Next, budgets should be prepared for new enterprises. The total bundle of resources on any farm should be used to maximize net farm income. The principle involved in maximizing net farm income is to exhaust each limiting resource in its most profitable use. For example, if land is used up, the objective is to receive as much net income per acre as possible. Many times the mistake is made of advising a farmer on how to produce a particular crop or livestock without looking at the total farm operation. It could be that the farmer should not be growing that particular crop or livestock in the first place.

In making enterprise budgets, start with the easiest budget for the enterprise the farmer is likely to produce. An example is corn. It is easy to relate to the cultural practices and the fertilizer materials required to grow corn.

2. *Production*—Be sure the farmer gets a clear description of the method you have described in the budget on how to produce the crop or livestock. The three important ingredients to a budget are: (1) prices, (2) yield, and (3) quantity. Do not select the highest price ever received for the crop when making a budget. The same is true for yield and quantity. Use the yield that could be expected under normal growing conditions.

3. *Tell at a glance*—It is easy to tell a lot about a farmer you plan to work with as you drive up to his farm. You can do this by looking at the size of the corn or tobacco stalks, herd bull, grass sods, terraces, fences, machinery and general farmstead.

4. *Be friendly*—Take time to get acquainted with the farmer and his family. If the farmer is going to make a change, it will likely take the full cooperation and sacrifice of the entire family. Take a walk over the farm and look at the crops, livestock and machinery.

5. *Compliment farmer*—Compliment the farmer or his family on something you see on the farm or in the home. It may be a big litter of pups that the farmer has no need for in the first place, but to him it is important. You want to gain his confidence and make him feel free to express himself.

6. *Making the budgets*—Making enterprise budgets is time consuming. This is the time to ask questions and really find out about the family. You should find out such things as: his knowledge of scientific farming, attitude about borrowing money, desire for more income, risks, indebtedness, and attitude toward change. Give the farmer ample time to relate to these and other questions.

7. *Demonstration best method*—Some jobs can best be taught by the demonstration method. That is actually showing the farmer how and what to do then let him do as you have done. Sometimes it is difficult to know if you have explained a method of operation in such a way that the farmer can do it. For example, calibrating a sprayer. The Extension Service has a long history of demonstrating to the farmers new and improved practices of production.

8. *A job versus decisionmaking*—Farmers sometimes get caught up in "jobs" when they should be devoting more time to "decisionmaking." It's hard to tell a farmer he is not using his time wisely when driving his tractor to plow soybeans when there is management work to be done. You can hire a tractor driver for about $3 per hour. What will it cost to make such management decisions as:

- Should I take off-farm employment to earn money to plant one acre of pick-your-own strawberries?
- Should I hedge my soybeans in June so I will be assured of $8 per bushel at harvest time?
- Should I buy 50 head of feeder cattle in September?
- How much can I afford to pay for the adjoining farm?

The idea is: you must have time to do a little pencil pushing to figure out some of the decisions that must be made on the farm.

9. *Motivation*—There is likely some reason why a farmer has inadequate resources and low income. Changes must be made to correct this situation if farm income is to be increased. Usually it requires some motiviation to get a family really going. There is one thing that motivates people. It seems to be universal. It's children. It is not the having of children necessarily, but it is providing a better opportunity for that child. Often we do not take advantage of this valuable resource. If you can't motivate the father, maybe you can get the child to motivate the father.

10. *Commitment*—The entire family must be committed to the farm plan if it is to be successful. One way to do this is to seat everyone around the dining room or kitchen table and discuss the farm plan in enough detail so that everyone knows exactly what must be done. The goals of each member of the family should be heard. The major goals should be written down on paper. Next, put a cost or price tag on each goal.

If it is unreasonable the family will adjust and be very critical of each other. Total the goals to see how much money must be generated to meet the goals. Keep adjusting the goals and the money until you come out with a reasonable farm plan. Make a final farm plan for the year and for 4 or 5 years hence. Later go over the farm plan with the entire family to point out the method of production, prices, yields, acres needed, etc. Each year the plan should be adjusted and brought up-to-date. Also, the goals should be adjusted in light of what was accomplished in years past.

The importance of intensive planning can best be demonstrated by pointing out the results on three farms that carried out such a program. These farmers were called "rapid adjustment farmers" because an objective of the program was to shorten the time required to solve problems on these farms. They were expected to complete the required changes in their farming operation in a 4-year period—achieving progress that would normally require a much longer time. The University developed an income maximizing farm plan using computer technology with the assistance of TVA agents providing crop and livestock budget data. All enterprise budgets took into account high levels of production using the latest production technology available. University Extension specialists, other agricultural agencies, and the TVA were asked to develop and implement the plan. TVA provided fertilizer materials and agents to work intensively with the family. Although the quantity of resources varied considerably on these farms, the increase in gross farm income during the 4-year period was from 2.39 to 2.74 times the base year or the year prior to implementing the program. All of the farms were selected with a specific purpose in mind so the experience gained would be useful to professional agricultural workers as they advised other farmers.

APPENDIX

FARM A

Situation

Farm A was operated as a partnership between a father and his married son. There were 36 acres of row-cropland and 336 acres of pasture land on this farm. About 260 acres of the pasture land was on top of a mountain and the native grass was low in productivity. The crops produced on this farm in 1967 were 1.5 acres of burley tobacco, 15 acres of corn, and 20 acres of timothy and meadow hay. There were 30 brood cows, about 30 steer calves, 5 replacement heifers, and 1 bull on the farm in 1967. There was no indebtedness on the farm. The labor on the farm consisted of the father and son. Labor could be hired when needed for $1.25 per hour. One of the purposes of selecting this farm for planning and study was the relationship that exists between a father and son in a partnership farming operation.

Problems and Accomplishments on Farm A

1. There was adequate land and labor to increase income very rapidly on this farm. Credit could be obtained if needed.
2. The herd bull was of very poor quality.
3. The steer cattle were marketed at weights of 1,100 to 1,200 pounds and were over 3 years old. The local market could not handle cattle this heavy.
4. Some of the land used to produce timothy hay was suitable for row crops.
5. The father would not agree to grow corn behind corn on rather flat bottom land or decrease the acreages in timothy hay.
6. A helicopter was used to apply phosphate to the steep mountain pasture. Also chemicals were applied by helicopter to control brush and weeds.
7. After the first year, mountain pasture was

Table A-1. Farm plan

		Program Number				
Enterprise	Units	1	2	3	4	5
Net revenue[a]		$12,727	$8,216	$8,657	$8,752	$8,847
Burley tobacco, own	ac.	1.50	1.50	1.50	1.50	1.50
Burley tobacco, rent-in	ac.	1.50				
Trellis tomatoes	ac.	1.00				
Pole beans	ac.	1.00				
Timothy hay	ac.	24.00	24.00	24.00	24.00	24.00
Corn	ac.	4.56	9.28	8.66	8.94	9.22
Cow-calf	hd.	40.00	40.00	40.00	60.00	80.00
Feeder steers	hd.	120.00	100.00	90.00	60.00	25.00

[a]Net revenue to land, operator and family labor, management and fixed expenses to existing machinery, equipment, and building already on farm.

Table A-2. Changes in income

Item	Base Year	1968	1969	1970	1971
Gross Farm Income	$ 6,713	$12,675	$13,094	$11,723	$16,814
Net Farm Income	762	6,197	6,540	6,664	11,240
Return over Variable Cost	1,782	6,625	7,324	6,538	10,533
Total Farm Investment	89,416	88,988	88,886	89,57 8	93,284

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producing considerably more grass than the cattle could use. The father would not agree to increase herd size to use the grass.

8. The herd was put on the twice-a-year weight program.
9. Two new herd bulls were bought during the 4-year period.
10. The father and son would not agree to produce trellis tomatoes, pole beans, or rent-in burley tobacco to increase income.
11. The father made all the business decisions on the farm and the son did not try very hard to change them.
12. Four years of planning and teaching economic principles to this family was not long enough to accomplish the needed changes as shown in table A-3.

Farm A was planned for the purpose of utilizing the resources on this farm for maximum beef cattle production.

Table A-3. Beef cattle record, 1968-1973

Year	Actual Weight	Adjusted Weight (205 days)	Number of Calves
1973	460	429	39
1972	477	454	33
1971	425	399	35
1970	440	382	27
1969	436	401	25
1968	425	376	25

1973: 429 wt. x 39 calves = 16,731 lb
1968: 376 wt. x 25 calves = 9,400 lb
7,331 lb increase
0.539¢ (sale price)
$3,951.40 over 1968

FARM B

Situation

Farm B consisted of 143 acres of pasture land and 30 acres of row-cropland. The farmer was producing corn, burley tobacco, and beef cattle in 1969. The operator had previous experience growing sheep, dairy replacement heifers and feeder pigs on a small scale. He was interested in considering one or more of these enterprises on a large scale along with the other enterprise being produced on the farm. One full-time laborer was available and day labor could be hired for $1.50 per hour. There was no indebtedness on the farm and investment capital could be obtained from governmental lending agencies. The farm was programmed with $30,000 investment capital for new fixed assets and also $20,000 investment capital. The results of the computer program at these two capital levels are shown in tables B-1 and B-2, respectively.

Problems and Accomplishments on Farm B

1. It was difficult to get any commitment out of the farmer on what new enterprises to produce.
2. Many different specialists from the University spent considerable time in counseling with the farmer.
3. Farmer did not have any dependable source for feeder lambs, ewes, or dairy calves.

Table B-1. Farm plan with $30,000 investment capital

Activity	One Unit	Units Came in Program	Net Revenue[a]
Tobacco, own	1 acre	1.0	$ 1,450.00
Tobacco, rent	1 acre	1.0	1,200.00
Finish hogs	1,500 head	1.0 (1,500 hd.)	4,933.00*
Farrow-finish hogs	45 sows	1.18 (53.4 hd.)	10,619.89*
Feed grain prog.	13 acres	.91 (11.8 acres)	594.35
Lamb finish	100 head	1.0	228.00
Feeding out beef cattle	100 head	1.0	3,861.00*
Sheep	100 ewes	.37 (37 hd.)	285.27
Dairy heifers 1 yr. to 24 months	100 head	.28 (28 hd.)	1,100.67*
Subtotal			$24,272.18
Less 333.45 hours hired labor at $1.25			333.45
Total			$23,938.73

[a]Net revenue to land, operator labor, one full-time laborer, management and fixed expenses to existing machinery, equipment and buildings already on farm. Fixed assets not on farm are indicated by asterisk.

Table B-2. Farm plan with $20,000 investment capital

Activity	One Unit	Units Came in Program	Net Revenue[a]
Tobacco, own	1 acre	1.0 (1 acre)	$ 1,450.00
Finishing hogs	1,500 head	1.0 (1,500 hd.)	4,933.00*
Farrow-finish hogs	45 sows	.66569 (29.7 sows)	5,955.26*
Feed grain	13 acres	.98764 (13 acres)	641.97
Lamb finish	100 head	1.0 (100 hd.)	228.00
Feeding out beef cattle	100 head	1.0	3,861.00*
Sheep	100 ewes	1.0	771.00
Dairy heifers 1 yr. to 24 months	100 head	.18006 (18 head)	705.11*
Total			$18,545.34

[a]Net revenue to land, operator labor, one full-time laborer, management, and fixed expenses to existing machinery, equipment, and buildings already on farm. Fixed assets not on farm are indicated by asterisk.

Table B-3. Changes in income

Item	Base Year	1970	1971	1972	1973
Gross Farm Income	$11,379	$19,412	$25,165	$ 17,654	$ 27,293
Net Farm Income	1,485	-758	8,314	7,874	11,654
Return over Variable Cost	1,019	7,061	5,392	7,880	12,347
Total Farm Investment		93,461	99,645	105,648	112,760

4. The Extension staff did not provide the leadership, training or confidence the farmer needed for producing swine.
5. The element of timing was important. For example, hog prices were on the decline the year the farm plan was to be implemented.
6. Facilities were added to grow dairy replacement heifers in 1971. Agreements were made by local dairyman to grow heifer replacements.
7. Gross farm income was increased by increasing burley tobacco acreages, maintaining a beef cattle herd and raising dairy heifers.

Farm B was planned to go into a feeder pig operation to utilize the resources on this farm.

FARM C

Situation

Farm C consisted of 24 acres of row cropland and 80 acres of mountain pasture land. Also, 20 acres of cropland and 20 acres of pasture land were rented-in. Production on this farm consisted of about 1.5 acres of burley tobacco, 2 acres of trellis tomatoes and 25 head of beef cattle in 1971. The short-term indebtedness in 1971 was $5,000, and the long-term indebtedness was $14,000. The farmer owned 1,475 pounds of burley tobacco allotment and leased-in about 3,000 pounds at a cost of 10 cents per pound. Labor could be hired for $1.25 per hour. Labor on the farm consisted of the farmer and his wife. They had one child less than one year old in 1972.

This farm family was selected for intensive farm planning and development in 1972. A 4-year farm plan was developed as shown in table C-1.

Problems and Accomplishments on Farm C

1. Local markets were available for grading, packing and shipping tomatoes.
2. The county Extension office provided the leadership and training needed for production and cultural practices for tomatoes.
3. Credit was available from agricultural credit sources.
4. Recommended practices were followed by the farm family.
5. Pre-planning was done on field selection, soil samples, varieties, fumigants, fertilizer analysis and other cultural practices for growing tomatoes.
6. Tomato prices and weather conditions were not favorable in 1973.
7. Income from tomatoes was reduced in 1974 as a result of heavy damage from verticillium wilt. Resistant varieties, fumigation and field rotation was used in 1975 to reduce wilt damage in tomatoes.
8. Black shank in the burley tobacco crop caused heavy losses in 1973.
9. The wintering program for fifty head of feeder steers was not added on this farm as was originally planned.
10. Tomato production was increased above three acres as was originally planned.

Farm C was planned for the purpose of developing a program using the existing cow herd and tobacco enterprise, maximizing the tomato production and adding feeder steers for additional income. Table C-1 shows the farm plan and table C-2 shows the actual changes in income.

With proper training and leadership the paraprofessional can be successful in working with limited resource farmers. Although the resources may be lower on many of the farms than the three I have reviewed for you, the results will be just as significant.

The paraprofessional can assist limited resource farmers by:

Appraising their resources.
Identifying problems to be solved.
Analyzing ways to solve these problems.
Weigh alternatives in terms of possible solutions.
Choose and follow the most promising courses of action.

Table C-1. Farm plan

Enterprise	Units	Amount	Gross Income	Variable Expenses	Return over Variable Expense[a]
1972 Farm Plan					
Tobacco	Acres	1.73	$ 3,633.00	$ 527.65	$ 3,105.35
Trellised Tomatoes	Acres	3.00	15,300.00	1,402.50	13,897.50
Beef Cows, feeder cattle	Cows	40	4,768.00	2,215.00	2,553.00
			$23,701.00	$ 4,145.15	$19,555.85
Less: Leased tobacco, 3,372 lb at 10c = $337.20; Hired labor, 1,665 hr at $1.25 = $2,081.25; Leased land, $1,000.00; total				3,418.45	
				$ 7,563.60	$16,137.40
1973 Farm Plan					
Add: 25 steers to above plan		25 head	$ 4,875.00	$ 4,321.62	$ 553.38
		1972 Plan	23,701.00	7,563.60	16,137.40
		1973 Plan	$28,576.00	$11,885.22	$16,690.78
1974-75 Farm Plan					
Add: 25 more steers		25 head	$ 4,875.00	$ 4,321.62	$ 553.38
		1973 Plan	28,576.00	11,885.22	16,690.78
		1974-75 Plan	$33,451.00	16,206.84	$17,244.16

[a]Net return over variable expenses to owned land, operator and family labor, management and fixed costs on existing machinery, equipment and building.

Table C-2. Changes in income

Item	Base Year	1972	1973	1974	1975
Gross Farm Income	$11,072	$25,229	$21,476	$26,367	$30,406
Net Farm Income	5,230	10,535	8,049	10,752	5,874
Return over Variable Cost	5,547	14,903	15,510	17,585	15,799
Total Farm Investment	47,661	46,813	45,945	43,068	45,736

Marketing Problems of Small Farmers

Small Farm Marketing Problems

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• There seems to be a revival of interest in small farms and their problems. The reasons for this vary. Small farmers, of course, are interested. They would like to increase their personal income. Also, many groups, both farm and nonfarm, want to preserve this element of the agricultural sector. There are other reasons. In any event, most of the small farm discussion has centered on production related problems. Marketing problems, however, present a greater problem in many, perhaps most, circumstances than do production problems.

This paper does not differentiate between low-income farmers with small farm operations and part-time farmers with small farm operations. The marketing problems of each group are essentially the same.

It must be noted that small farm operations are not defined by acres. Soil fertility, water, management, capital investment, the quantity and quality of labor, and market accessibility have more to do with net income than do acres.

Characteristics of Small Farmers

There are some important sociological characteristics of small farm operators that have a bearing on agricultural marketing systems and programs. Some of the noteworthy characteristics are:

Fewer full-time workers—Small farms usually have fewer full-time workers available to them than do commercial farms. This results in less time available for marketing. The large bulk of time is applied to production problems.

Lack of expertise, training, and knowledge of marketing—Small farmers often have little knowledge of the marketing alternatives available to them. They usually have little knowledge of the marketing system or how it works.

Nonuse of information—Small farmers make less use of market information than do commercial farmers. This is related to knowing how to interpret information and apply it to their own situation.

Lower risk preference—Small farmers are less willing to accept risk than are large farmers. Small losses would have much more serious consequences on the livelihood of full-time small farmers than on large farmers. Even part-time small farmers seem less inclined to accept risk.

Peer group similarity—Those who lead and participate in agricultural marketing organizations and programs tend to be commercial farmers. Small farmers tend to have their own social groups. Consequently, they are less likely to get marketing information and knowledge from social interaction with friends and acquaintances.

Concentration of low-income people—High quality land and water resources are conducive to large-scale commercial agricultural operations. Consequently, there tends to be larger concentrations of small farm operations in areas with lower quality land resources.

Characteristics of the Agricultural Marketing System

The marketing system is designed to accommodate volume. This means it is structured to handle the output of commercial farm operations that produce the large quantity of agricultural commodities. Buyers want large lots of uniform quality products that fit their specified needs. This applies to all commodities: feed grains, food grains, soybeans, cotton, cattle, hogs, fruits, and vegetables. Small lots and variable quality are discounted because of increased handling costs incurred in this type of transaction. In fact, there may be no market for very small lots or particular quality items. In some cases, firms will only buy products that have been contracted in advance, e.g., broilers and processed fruits and vegetables.

Small farmers have different marketing problems than do large farmers. Moreover, they have fewer alternatives.

Economies of Scale in Production

Some agricultural enterprises have more economies of scale than do others. Those with fewer economies of scale are usually best suited for small farm operations but major marketing problems may exist for these commodities.

Enterprises with large economies of scale include all types of grain production, cattle feeding, poultry production, sugar cane and sugar beets, cotton,

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most processed fruits and vegetables, and fresh market fruit and vegetable production that is highly mechanized. Hog feeding operations are moving this way.

Those enterprises with the fewest economies of scale include feeder pigs, feeder cattle, tobacco, a few processed fruits and vegetables such as peppers and handpicked pickles, and some fresh fruits and vegetables such as strawberries and staked tomatoes.

In many cases, marketing systems available to small farmers are antiquated. This adds higher marketing costs to any increased costs incurred from small-scale production units. Small farmers in this situation are at a considerable disadvantage relative to commercial farmers.

Specific Marketing Problems

Quality variability—Quality variation among small farm units presents a special problem. Uniform quality, grades, and standards are necessary for orderly marketing. These are more difficult to attain in marketings from small farmers.

Volume—Low volume markets are inefficient. Minimum levels of volume are necessary in order to establish a market. There is a tendency for small farmers to sell their commodities in low volume markets.

Market information—Sellers and buyers need information to make good marketing decisions. This is not available in many smaller markets. Moreover, buyers have more information than small farmer sellers.

Coordination of production and marketing—It is much more difficult to coordinate production on many small operations than to plan production on one large unit. Coordination of production and marketing makes for a more efficient marketing system. Some markets require producers to coordinate their production with market needs, e.g., processed vegetables.

Transportation—Cost of transportation increases for small lots and operations. Transportation systems have to be developed in many small farm situations.

Assembly costs—The cost of assembling small lots is higher than for large lots.

Market access—Some small farms do not have access to a market, e.g., some buyers may only accept truckload lots or transportation costs to market on small lots may be prohibitive.

Price instability—This is a serious problem for all farmers. Larger farmers, however, may be able to contract production and establish prices on some commodities, e.g., grain, broilers, and processed fruits and vegetables. This option may not be available to small farmers.

Unequal market power—Small farmers have less market power than larger farmers because they have fewer market options and smaller selling lots. They are also less likely to be a member of a marketing cooperative or consortium.

Finance and ownership—Many commercial farm operations have integrated forward into the marketing system by means of cooperatives. Some examples include dairy marketing and processing cooperatives, grain marketing and storage cooperatives, and fruit and vegetable grading, packing, and marketing cooperatives. Small farmers usually have not invested in a system to market their own products.

Imperfect pricing mechanisms—Changes in the marketing systems have caused considerable imperfection in the pricing mechanism for some products. These include poultry, eggs, and to a lesser degree, cattle and hogs. Usually price imperfection increases as market size decreases.

Agency help—Larger commercial farms seek and use marketing services provided by various governmental agencies. There is less demand for these services by small farmers. Small farmers receive and use less of the marketing services provided by public agencies.

What Can Be Done?

Most specialists working with small farmers assume there is a market for the commodity being produced. Moreover, they assume a price and set up a budget. This approach must be modified. Markets must be assured before the enterprise is planned, otherwise the enterprise will not be successful.

We must think of a total system—production and marketing. If a market exists for the planned enterprise, it should be studied carefully to determine if small farmers have access to it. If they do, the market should be analyzed for physical and price efficiency, changes, where feasible, can then be made.

Where market systems are inadequate or nonexistent, they must be developed. This is usually more difficult than producing the commodity. Production should then be coordinated with the market.

Extension has many opportunities in marketing information and education. Small farmers spend little money or time in marketing. Programs designed to increase managerial ability in both production and marketing should produce results. Marketing education in conjunction with enterprise selection and scheduling, use of credit, work methods, labor scheduling, and personnel management would be most useful.

Each situation should be analyzed. They are unique. Education programs should be designed to meet specific marketing needs. Some examples of needed marketing education include establishing

economic units on farms and in communities, developing cooperative feeding arrangements to market livestock and/or feed grains, electronic marketing systems, transportation cooperatives, setting up contractual marketing programs, developing grading, packaging, and shipping operations, and setting up direct marketing systems.

In conclusion, any education program for small farmers should include a marketing component. If this part is neglected, the overall results will be less than they could be. There may even be total failure in some cases.

Marketing Feeder Pigs and Feeder Calves By Limited Resource Farmers

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• I consider it a privilege to be invited to attend this workshop and to discuss with you some of the problems and possibilities in marketing feeder pigs and feeder calves by limited resource farmers. Much of the material that follows will be drawn from research that dealt with marketing alternatives of limited resource feeder pig and feeder calf farmers in the Missouri Ozarks. However, similar marketing situations do prevail in other states having large concentrations of small farmers.

I'm sure that all of you are aware and are concerned that low farm income continues to be a characteristic of too many farmers across the United States. Census data as recently as 1975 show that more than 65% of the 2.8 million farmers in the United States are receiving less than $20,000 gross income from farm sales annually. In fact, a large number of farmers reported receiving less than $5,000.

On the surface, the farm problem seems relatively obvious. The average informed citizen could quickly tell you that the small farmer's problem is that of low farm income. However, on closer observation one would find that low income is not in itself the farm problem, but the primary evidence of a host of other problems that many farmers continue to face.

Economic theory suggests that where the assumption of the perfectly competitive model is met, resources will be allocated to their best alternative use through operations of the resource market. To some degree, this principle has held true in the agricultural sector. Technological progress continues to release the labor resource from agriculture for employment in the industrial sector. Even so, for various reasons, a large number of farmers, who according to theory should find other forms of employment, have remained in farming.

Census data also indicate that farm numbers continue to decrease while average farm sizes increase. Optimistically interpreted, this would suggest that the resource market is actually working to reallocate the labor resource. However, the rate of outmigration from farming areas has not completely eliminated the low-income problem which is especially serious for small farmers who remain on the farm and are dependent, almost entirely, on farm income for their livelihood.

Many of you have the responsibility of finding ways to increase income, and the quality of living for families living on small farms. In view of the very low incomes, limited resources, and limited employment alternatives which these families have, a major concern must be to teach the skills and knowledge that will increase their income from farming.

Limited resource farmers face many of the same problems that have been listed for farmers in general. However, their problems are more pronounced and for a number of legitimate reasons. For example, in the past, government expenditures and attention have mainly focused on income support programs for commercial agriculture. Governmental programs such as marketing orders, marketing agreements, price support, and acreage adjustment programs have tended to reward farmers in proportion to the size of their farming operations. Such programs have helped to encourage trends toward

even larger farming operations. Also, many of Extension's past programs and much of the agricultural assistance available through other farm agencies have involved at most only a few small farmers.

As the term implies, limited resource farmers are limited by one or a combination of the four factors of production, namely land, labor, capital, or management. In addition to these four factors, which are often associated with production, small farmers in many instances have problems in marketing. Changes in market location, market structure, and market regulations have had the effect of limiting the number of enterprises from which the small farmer can select. Contractural arrangements in the fruit, vegetable, and poultry industries; marketing orders in the case of milk; and "formula-pricing" in the case of livestock are all good examples of how structural changes in marketing can affect not only the small farmer but also the average farmer in agriculture.

FEEDER CALF AND FEEDER PIG MARKETING

As stated at the outset, my specific assignment today is to discuss the marketing of feeder pigs and feeder calves by small farmers. By marketing I am referring to the performance of all business activities involved in the flow of feeder pigs and feeder calves from the point of initial agricultural production until they are in the hands of the consumer. In this particular setting, the consumer would be feeder pig and feeder calf finishers mainly from the corn belt.

In pursuing my assignment, I would like to focus attention on small farmers in the Ozarks region of south Missouri where the incidence of small farmers is particularly high. The Ozark foothills region, a 5-county region, is predominantly rural, and 83% of the farms grossed less than $20,000 in 1974.

Information on marketing practices was also collected from small farmers in two adjoining counties where a survey was underway as a part of the Missouri Small Farm Extension Program. Information on the region was collected by personal interviews of small farmers, educational assistants working with small farmers, marketing firm personnel in cooperatives, and other livestock marketing agencies serving the area.

If we assume that production has been accomplished by the most economically efficient means, the farmer is then faced with the problem of marketing. Because small farmers are rational producers, they, like all other producers, want to maximize total revenue for each head of livestock sold. However, in many instances, low volumes of output, product quality, transportation costs, and lack of knowledge regarding prices at alternative locations often prevent small producers from reaching the revenue maximizing objective.

Types of Marketing Agencies Used

Small feeder pig and feeder calf producers in the Ozarks and in many other areas of the South market their livestock through the following market channels or agencies: (1) cooperative sales, (2) country dealers and order buyers, (3) private auctions, and (4) direct sales.

Cooperative sales—This refers to feeder pig and feeder calf sales where the sellers are members of the cooperative. The member producers send their feeder pigs or feeder calves to the sale where they are sized, graded, and then auctioned off in uniform pooled lots.

Country dealers and order buyers—Dealers are independent operators who buy and sell pigs. They take title to the livestock. They operate by attempting to sell at a higher price than that at which they buy, thus earning a profit. Order buyers are persons who act as agents of livestock buyers in the procurement of animals. They do not take title to the livestock but perform the buying service for hog finishers on a commission basis.

Private auctions—Private auctions are marketing outlets. Farmers selling through private auctions consign their livestock and send them (or they may be picked up) to the auction facilities. They may be sorted by weight or type, and then offered for sale under the name of the consignee.

Direct sales—Direct sales is a marketing process whereby farmers sell livestock to their neighbors or to other local farmers. In some cases long distance buyers will make direct purchases from farmers who have over a period of time developed a reputation of producing quality livestock.

Feeder Calf Marketing

The topography of the land of the Ozark foothills region and surrounding counties is ideally suited for feeder calf production. Much of this land is hilly and unsuited for row crops. Of the 536 farmers surveyed in two counties, 343, or 64%, reported marketing feeder calves. The total volume marketed by all producers was 6,861 head (table 1). This figure represented an average of 20 head per farm. The

Table 1. Estimated number of feeder calves sold by small farmers through various outlets[a]

Outlets	Number of farmers[b] (Number)	(Percent)	Number of feeder calves (Number)	(Percent)
Cooperatives	35	10.2	1,191	17.4
Dealers	42	12.3	1,011	14.7
Private auctions	206	60.0	3,956	57.7
Other farmers	60	17.5	703	10.2
Total	343	100.0	6,861	100.0

[a] Data obtained from survey of 536 small farmers in Iron and St. Francois Counties, Missouri.

[b] Out of the 536 farmers who returned usable surveys 343 (64%) reported selling some feeder-calves.

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number of head of feeder calves sold per farm ranged from a low of 1 to a high of more than 200 head (table 2).

Outlets used—Of the four alternative marketing channels mentioned, private auctions were by far the most important. Nearly two-thirds of all farmers (61.2%) surveyed sold their feeder calves through private auctions.

The second most important outlet in terms of the number of transactions made were "other farmers." More than 18% of all feeder calf producers sold some feeder calves to other farmers. Only 35 of the 343 feeder calf producers marketed calves through cooperatives. In fact, cooperatives ranked fourth among the four outlets in terms of the number of farmers selling their feeder calves through that outlet (table 1).

Volume marketed—As mentioned, the 343 feeder calf producers marketed a total of 6,861 head of feeder calves through all four types of outlets. Nearly 58% of the calves (or 3,956 head) were sold through private auctions. Cooperatives ranked second, marketing 1,191 head. Country dealers ranked third, marketing 1,011 head, and other farmers ranked fourth, marketing slightly over 700 head.

On the average, producers who marketed feeder calves through cooperatives had the largest average herd size. With only 35 of the 343 feeder calf producers selling 1,191 head of feeder calves through the cooperative, the average number sold per farm was 34 head. Further analysis showed that one-third of all feeder calf producers marketed 10 feeder calves or less annually. More than two-thirds (69.7%) marketed 20 calves annually (table 2).

Summary—Survey data showed that private auctions ranked first in importance in terms of both the number of farmers using them as marketing outlets, and in terms of the total number of feeder calves marketed through them. Cooperatives ranked fourth in terms of the percentage of feeder calf producers who reported marketing their calves through them. However, they ranked second in terms of the number of feeder calves handled.

Table 2. Number of feeder calves sold by small farmers in Iron and St. Francois Counties[a]

Number of head sold (range)	Absolute frequency (No. of farmers)	Cumulative frequency (percent)
1 to 10 calves	131	32.4
11 to 20 calves	109	69.7
21 to 30 calves	55	86.4
31 to 40 calves	17	91.5
41 to 50 calves	9	94.2
51 to 60 calves	8	95.2
61 to 100 calves	9	97.9
101 to 150 calves	3	98.8
151 to 200 calves	3	99.7
over 200 calves	1	100.0

[a]Data obtained from survey of 536 small farmers in Iron and St. Francois Counties, Missouri.

Mean: 20.79; Variance: 763.40; Median: 14.10

Feeder Pig Marketing

Swine production is a relatively high income, rapid return farm enterprise particularly adapted to the study area. Feeder pig production was, by far, the largest swine enterprise in the area. There were a few finishing operations located in the flatter, grain producing southern sections of the region (i.e., Butler County).

Only 70 of the 536 farmers who completed usable surveys provided any information regarding feeder pig production and marketing. It was suspected that many feeder pig producers simply refused to provide the requested information. Those 70 farmers who indicated feeder pig sales represented only 13% of all farmers in the survey. Because the percentage of farmers reporting feeder pig sales seemed unusually small, this percentage figure was checked against the most recent agricultural census data for the two counties. Census data revealed that only 6.8% of all farmers in St. Francois and 11.9% of all farmers in Iron County reported feeder pig sales in 1974.

Outlets used—Like feeder calf producers, farmers producing feeder pigs used four types of marketing outlets. Those outlets were cooperatives, dealers, private auctions, and other farmers.

Thirty-five of the 70 feeder pig producers sold their pigs through cooperatives. Twenty-one producers sold their pigs through private auctions, and the remaining 14 producers sold their pigs to "dealers" or to "other farmers" (table 3).

Volume marketed—Survey data revealed that all feeder pig producers marketed a total of 9,981 head of pigs in 1975. More than half of this total volume (56.6% or 5,550 head) was marketed through cooperatives. MFA, IPLA, and MCFLA feeder pig cooperatives have a number of outlets located in or near the two counties surveyed.

Private auctions ranked second to cooperatives in terms of the total volume of feeder pigs handled annually. The 21 farmers who marketed their pigs through private auctions sold a total of 4,010 head. Cooperatives and private auctions accounted for 95.8% of all feeder pig sales (table 3).

The 35 farmers who sold feeder pigs through cooperatives, sold an average of 159 feeder pigs annually. This average figure was exceeded by the 191 head average marketed by farmers who sold their pigs through private auctions (table 3).

Average figures would imply that each of the 70 feeder pig producers sold 115 pigs annually. However, data presented in table 4 show that two-thirds of the 70 feeder pig producers each sold less than 60 pigs annually. Nearly three-fourths sold less than 100 pigs, and only 9 farmers (or 10%) sold more than 200 head (table 4).

Summary—Based on survey data alone, one could easily conclude that cooperatives were the most important single outlet for producers of feeder pigs. One could further conclude that cooperatives were

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Table 3. Estimated number of feeder pigs sold by small farmers through various types of outlets[a]

Outlets	Number of farmers (Number)	(Percent)	Number of feeder pigs (Number)	(Percent)	Average number sold (per farm)
Cooperatives	35	49.3	5,550	55.6	159
Dealers	2	2.8	45	0.6	23
Private Auctions	21	29.3	4,010	40.2	191
Other Farmers	13	18.3	376	3.8	29
Total	71	100.0	9,981	100.0	

[a]Data obtained from survey of 536 small farmers in Iron and St. Francois Counties.

the least important outlets for producers of feeder calves, where importance was measured in terms of the percentage of all farmers using cooperatives as their feeder calf marketing outlets.

As previously noted, private auctions were the most important outlets for producers of feeder calves. However, many of the so-called private auctions were originally organized by Extension workers, and some farmers still confused such private auctions with Cooperative Extension sales. This confusion could have had some influence on the number of farmers reporting private auctions as their primary marketing outlets when they were actually speaking of cooperative sales.

GENERAL MARKETING PROBLEMS

Marketing problems of small farmers are many and varied but typically include those associated with changing conditions in the marketing industry, lack of capital, low volume, and product quality. There are others, but these four are always among the more important marketing problems facing small farmers.

The product market, the market for things farmers sell, has been important from the earliest days of this country. For some products, vertical integration of the industry has nearly eliminated local markets. In others, the economies associated with buying in large quantities have encouraged the large food retailing firms to buy their products in areas where production is concentrated and highly specialized. These changes have been such that in many areas the enterprises for which there are local markets are quite limited. The operator of a small farm in such instances is forced to produce the product that can be marketed locally or combine with other farmers in developing a new market system.

Table 4. Number of feeder pigs sold by small farmers in Iron and St. Francois Counties[a]

Number of head sold (range)	Absolute frequency (No. of farmers)	Cumulative frequency (percent)
1 to 10 pigs	12	17.1
11 to 20 pigs	11	32.9
21 to 30 pigs	6	41.4
31 to 40 pigs	7	51.4
41 to 60 pigs	9	64.3
61 to 80 pigs	5	71.4
81 to 100 pigs	2	74.3
101 to 150 pigs	3	78.6
151 to 200 pigs	6	87.1
210 to 250 pigs	2	90.0
251 to 300 pigs	1	91.4
251 to 400 pigs	1	92.9
401 to 500 pigs	3	97.1
501 to 600 pigs	1	98.6
601 to 1500 pigs	1	100.0

[a]Data obtained from survey of 536 small farmers in Iron and St. Francois Counties, Missouri.

Lack of capital, low volume, and product quality are three more factors often cited as marketing problems of small farmers. Lack of initial membership or equity capital has often prevented small farmers from joining some marketing agencies. Some marketing agencies (i.e., some cooperatives) require that farmers supply certain minimum volumes in order to market their livestock through them. Many small producers, due to the size of their operation, are not able to meet these minimum volume standards. Lack of management and other production and marketing skills have led to the production of livestock of inferior quality by small farmers.

MARKETING PROBLEMS IN THE OZARKS

As indicated earlier, livestock enterprises are the major sources of income for small farmers in the Ozarks section of Missouri. Since the region is not a major feed grain producing area, most of the farmers produced either feeder calves or feeder pigs. There were six livestock marketing cooperatives in the region. These were comprised of three county livestock association markets, two MFA feeder pig auctions, and one IPLA feeder pig market. Also, four of the eight counties adjoining the region had livestock marketing cooperatives.

Interviews with local small farmers and cooperative personnel in the study area led to the conclusion that capital, volume, and quality problems did not generally prevent small farmers from joining established cooperatives in the region. There were no initial membership capital requirements of farmers who wished to join local livestock marketing cooperatives. Annual membership fees, where they existed, were only $2 and in some cases even less. With the exception of MFA, there were no

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minimum volume requirements. Farmers who wished to become members of MFA feeder pig cooperatives were required to farrow a minimum of 10 sows annually. The farmers also agreed to market all pigs produced through the cooperative except for those kept for breeding stock.

Area auction bar operators indicated that quality of livestock marketed by small producers was, in most instances, comparable to that marketed by larger producers. Neither information obtained from interviews nor policies stated by firms in the area indicated any discrimination against livestock marketed by small farmers.

When farmers were asked specifically if more livestock marketing cooperatives were needed in their area, the answer was negative. Farmers seemed to believe the existing livestock marketing cooperatives had unused capacity and were capable of handling present as well as any future livestock sales.

TRENDS IN USE OF MARKETING COOPERATIVES

It was not possible to make a detailed analysis of the economic viability of individual cooperatives in the area. As an alternative, trends in volume of business were examined to see whether it appeared the marketing cooperatives were growing or about to disappear from the area.

Marketing of feeder pigs and feeder calves through cooperatives in the Ozark foothills counties and adjoining counties was examined for the period 1971 through 1976. Cooperatives were handling an increasing volume of feeder pigs during this period. This was in spite of the fact that the pig crop for the State of Missouri and the number of hogs in the Ozark foothills counties actually declined during this period. However, the situation was somewhat different for feeder calves in that the volume of feeder calves handled by cooperatives declined during the period while the calf crop was actually increasing in size. Although the pig crop and calf crop data shown are for the State of Missouri as a whole, the estimates of number of hogs and cattle on farms in the Ozark foothills region would indicate that numbers of calves and pigs produced in that area followed the State pattern fairly closely.

As indicated earlier, the types of cooperatives available for feeder pigs are somewhat different from those for feeder calves. All of the feeder calf cooperative markets in the area are county association auctions originally organized by local people in cooperation with the Missouri Extension Service. But for feeder pigs, in addition to the county livestock association auctions, there are markets provided by both MFA and IPLA. Examination of the data, for the types of cooperatives, suggests that volume handled by both MFA and IPLA increased steadily during this period while the volume handled by the county association auctions actually declined.

Although certainly not conclusive, the trends in marketing through cooperatives in the area would suggest that the feeder pig markets may be viable, but the situation is not nearly so certain for the cooperative feeder calf markets. As indicated earlier, this may be associated with the services provided in the case of feeder pigs and the importance of the services compared with the situation in the case of feeder calves. For feeder calves, private auction services appear comparable to those provided by cooperatives.

IMPLICATIONS FOR SMALL FARMERS

Throughout the world increased attention is being focused on small farms. Even in the United States with its very dynamic agriculture, a large proportion of the farms is small. About one-half to two-thirds of the farms in most states are in the small farm category with the definitions or schemes of classifications typically suggested. It has become increasingly evident that public programs and institutions serving commercial agriculture do not meet the special needs of small farms. This means that policies and programs specifically tailored to the needs of small farms are necessary in some instances. Group efforts in marketing, purchasing, and in some cases changes in products offered may be necessary to improve the incomes of small farmers.

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Factors to Consider in Direct Marketing Through Mobile Roadside Stands

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• During the past few years, throughout the U.S., there has been renewed interest in helping farmers to improve their income situation through direct marketing. Reasons for pursuing the direct marketing approach are quite simple: For example, by looking at the farm-to-retail spread on many farm produced items, it is easy to see that the farmer's share of the consumer dollar is very small. To gain a major share of the consumer's produce dollar, a farmer himself must perform many of the merchandising functions traditionally handled by middle men. In many instances these functions consist of inspecting, grading, packaging, displaying, advertising, and selling. In those instances where the final product is not significantly altered in appearance, there are opportunities for cost savings to consumers and profits to the farmer through direct marketing. Many horticultural products produced by small farmers offer such possibilities.

A second reason for marketing directly is to preserve the quality and freshness associated with home grown products. Many products grown on a commercial scale often lack the quality and freshness direct market patrons demand due to qualities needed for commercial harvesting and long shelf life. Indications are that there is a demand for farm fresh products not being supplied through retail outlets. It is this demand segment of the market that will be the focus of the mobile roadside markets.

Market Channels

Direct marketing of agricultural products occurs primarily through three marketing channels: farmers markets, roadside stands, and you-pick operations. Recently the mobile roadside stand marketing approach has been receiving some attention. Marketing directly through mobile units is similar to marketing through roadside stands, with the major difference being that the mobile unit will be moved from a fixed location in one county to a similar fixed location in an adjoining county. This flexibility feature of the mobile roadside units will provide small farmers with new marketing alternatives at little or no cost.

Because the mobile roadside marketing units will be moved along major highways, certain building specifications will be followed to ensure that permanent permits will be granted. For example, the units will not exceed a width of 8 feet. Following this regulation will help ensure the granting of a permanent permit, which would not be granted otherwise. The length of the unit will influence the type of vehicle used to move it. If the unit is to be moved by a small farm truck or station wagon, its total length must not exceed 28 feet. With an overall length of 28 feet, the unit will easily house all the available produce of 10 to 15 small farmers.

Regardless of its occurrence through farmers markets, roadside markets, you-pick operations, or mobile roadside stands, direct marketing is an approach which is usually beneficial to both producers and consumers.

To producers it often means a market for his products where none has existed previously. Also by producing and marketing fresh fruits and vegetables in addition to regular crops, mainly tobacco, small farmers eventually can increase net farm income. To consumers it provides an opportunity for direct purchase of high quality farm fresh products at competitive prices. In addition to these tangible advantages, some consumers view visits to such markets as family social outings.

How to Determine Market Needs

Perhaps the single most important factor in deciding whether to market directly is consideration of the need for such a market. The fact that a few consumers indicate a need or desire for such markets does not automatically guarantee that such markets will be successful or feasible. In determining the feasibility of a mobile roadside market one should use the following procedures:

1. Identify the existing marketing alternatives available in the county or in farmer and consumer trade areas.
2. Identify the types of products supplied through existing markets.

3. Determine the total volume of each product variety being sold through existing markets.
4. Identify demand for products not supplied.
5. Determine if total current supply is adequate to meet consumer demand.
6. Determine whether or not there are enough producers to supply unsupplied demand.
7. Determine if there are producers willing to shift some production resources to new product varieties.

Regardless of type (farmers market, roadside stand, you-pick, or mobile roadside stand), a market is thought to be feasible or successful, if producers investing in the market can receive a return on their investment equal to the return on their next best investment alternative. However, because the major investment in the mobile roadside marketing units will be made by educational and governmental institutions, producers will only be concerned with variable investment costs such as transportation and labor.

It is important to remember that a market (mobile roadside stand) is needed only if the functions that it plans to perform are not being performed adequately through existing markets. Identification of present markets, the distance from the home to such markets, and the percentage of total demand handled by such markets are all factors to consider in determining the needs for additional markets.

Estimating Consumer Demand

If direct marketing channels are to be successful, they must provide those products and services demanded by consumers in adequate volumes and at competitive prices. Many studies have shown that the primary cause of failure of many direct marketing efforts is an inadequate supply of those products that consumers demand. When consumers fail to find those products they wish to buy at direct markets, they tend to look elsewhere.

There are several steps that one should follow in estimating consumer demand. Some suggested steps are:

1. Identify the trade area boundaries of consumers in your county. Trade areas boundaries refer to those markets, regardless of location, that are used by consumers to buy farm fresh products.
2. Identify those products demanded. Many consumers will demand from 1 to 15 different types of products. Still others are willing to pay extra for certain varieties within a given product line.
3. Identify the total product demand by type of market channel. For example, what percentage of total tomato purchases are made through farmers markets, roadside stands, and you-pick operations.
4. Estimate additional demand that could be attributed to freshness, quality, and market location. By locating a market closer to the consumer and providing high quality farm fresh products, greater demand can be stimulated.

Estimating Producer Supply

The total volume of products that farmers are willing and able to supply through direct markets is a function of their individual resource limitations. As an example, the total volume of tomatoes supplied by farmers from a given county to the mobile roadside marketing unit could be obtained by the following procedures:

1. Determine the number of acres of tomatoes that will be planted and harvested by all farmers in the county.
2. Estimate the average expected yield per acre, based on past performance.
3. Multiply the total acres planted and harvested by the mean average yield per acre to get total expected volume.
4. In making final estimate of total tomato production, remember that actual tomato output will depend on a number of factors including climatic factors over which the producer has no control. Therefore, actual output could fluctuate around the estimated volume.

Locating the Roadside Market

There probably will be very few market locations that will be ideally situated. It usually becomes a question of making the best selection from the sites available. Normally, however, a level stretch of land on the right hand side of the road heading toward town has the most promise as a market location. Also, a two-lane, moderately well traveled road would be preferable to a four-lane or divided highway. In most cases it will be your regular local customers, rather than transient traffic, that account for most of your sales volume. More people will become your regular customers if you can avoid difficult and congested highways. Zoning regulations as well as the location of competing markets will also influence your market location.

Parking Space Availability

Parking space availability is another important factor that should be considered in selecting a location for the mobile roadside market. Almost any market location selected will present some

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parking problems. In many cases these problems are more severe than in others. For some market locations it is possible to use the available space. For others this may be almost impossible. Those market locations with some parking space available could use the available space effectively by maintaining orderly parking patterns.

Organized traffic patterns can make a big difference in the number of cars that can park at any given time. Three main steps an operator can take to fully use parking lot space are:

1. Set-up definite entrances and exits
2. Set-up a one way traffic flow
3. Mark off distinct parking spaces for cars

Setting up definite entrances and exits and setting up a one-way flow throughout the parking lot does several things to improve the parking situation: it improves safety when customers are entering, moving through, and leaving the lot; it eliminates much of the confusion in the lot; and it makes more space available for cars to park. Because only one lane is required for cars to move through the lot, less space is taken up by cars traveling through. Therefore, this space can be used to park more cars.

Even without one-way traffic flow or some other traffic pattern, you will probably find that it helps to mark off distinct parking spaces in an orderly fashion. This will increase the number of cars your lot can hold. It also reduces the number of times customers will be "parked-in" when they wish to leave. Finally, cars parked in an orderly fashion are likely to make the idea of shopping more appealing to the passing motorist. When parking appears to be no problem, he has one less excuse for not stopping.

The cost of setting up traffic patterns and marking off spaces is another important factor that should be considered. This cost can vary greatly depending on the materials used. To set-up traffic patterns and limited access lanes, a barrier may be necessary to prevent cars from coming in along the entire frontage. Signs will also be required to direct traffic into, through, and from the market. Marking off parking spaces can be done with a variety of materials. For example precast concrete barriers are available in sizes suitable for parking lots. Blocks of wood and logs also have been used successfully by some markets for marking off spaces. Some locations will have adequate parking due to the nature of business established adjacent to the units' location.

Sign Construction and Use

Roadsigns can be a great help to your roadside market if they are used properly. Likewise, they can be hindrances if they are handled improperly. Roadsigns usually give the first impression of your market. If signs are appealing, neat, and generally attractive, customers are much more likely to stop. If signs are unattractive and unkempt, your operation is likely to start with a bad impression that will be difficult to overcome. There are many things to remember when designing and developing your roadsigns. For example, the size of the signs that you use will depend upon the following factors:

1. the type of customers you choose
2. the amount of information you want to convey
3. the number of signs you choose
4. advertising competition
5. zoning regulations
6. the cost of signs

More specific information on each of these factors is presented below:

Type of customers—The type of customers you choose as the target for your sales will influence the type of signs you use. If your customers are primarily transient, you might want to make your signs large to attract their attention. But if most of your customers are local and are aware of your market, smaller signs that merely remind them that you are open will be sufficient.

Amount of information—The amount of information you want to convey to the motorist on the roadsign will also affect the size you choose. A small sign crowded with information will not be readable to cars passing at a high rate of speed.

Number of signs—The number of signs you choose to display will also affect the size you choose. For example, if you choose to use "teaser" signs it may be almost as effective to use small signs as larger ones.

If your market is competing—If your market is competing for advertising space with many other advertisers, the size you choose may be larger. If a small sign will be overshadowed by others near it, it is probably advisable to use larger signs if the added expense of these doesn't prohibit you from using them.

Zoning—Zoning regulations and roadsign advertising limitations may dictate the size of signs you display, if in fact signs are permitted. Rules and regulations regarding roadsign display should be carefully studied before buying a roadsign.

Cost of signs—The cost of signs available to you may affect your decision. If there is little difference between the cost of large and small signs, you may wish to display larger signs. If the cost of the larger signs is much greater than the cost of smaller ones you might consider displaying several smaller ones.

Sign Placement and Composition

Initial roadsign—The initial roadsign should as a rule be placed at least 2,500 feet from your market. The potential customer must make a decision as to whether or not he will stop at your market after seeing the initial sign. This decision

in many cases will require a little time. If a customer is traveling at 55 miles per hour, the time he needs to make this decision is quickly used. Therefore, it may be a good idea to state the distance to the market from each sign you display. Starting well in advance of the market and placing one or more signs between the initial sign and your market can help customers make their decision. Those markets depending heavily upon transient customers rather than local trade should give sign placement and distance careful consideration.

Roadsigns of dates and hours open—Roadsigns showing the dates and hours you are open are also important. A customer who has driven several miles only to find your market closed is quite likely to be angry. Much ill will can be avoided by making your hours and dates well known. For mobile roadside stands, signs that can be taken down or easily moved should be used.

Roadsigns that reflect county style—Roadsigns that reflect county hospitality and that do not have a commercial appearance are better attention getters. Since most signs contain highly commercial messages, one that does not is more likely to stand out from the rest. This type of county theme is usually in step with the image most markets like to cultivate anyway.

Roadsign with name and market location—A roadsign giving the name and location of your market can be constructed so that individual panels with the types of produce in season can be hung from the bottom of the sign proper. These signs are not much more expensive than many you may be considering and are actually much more effective. For example, when strawberries and asparagus are in season, you can suspend the panel with strawberries from the main sign with small chains. The asparagus panel can be suspended from the strawberry panel. This system offers maximum flexibility and also allows your signs to offer up-to-date pertinent information throughout your marketing season. The height of your sign should be planned to meet the largest number of panels you want to suspend at any one time.

Shaped roadsigns—Roadsigns shaped like produce items sold in your market and painted realistically can be effective attention getters. The name of the market can be printed on them or the distance to the market or both. By painting a picture of available produce the potential customer's urge to buy may be greater. People often respond to pictures more quickly than they do to words. A picture is worth a thousand words.

Size of letters—The size of letters used on roadsigns is also important. Seven inch letters are visible only 200 feet; while 12-inch letters with strokes 2 inches wide are easily visible from a much greater distance.

Pricing

Freshness and lower prices are the two major reasons that people give for buying at roadside markets. If prices are too high, patronage will be lost. The most popular and effective pricing policy used by roadside marketers is to have their prices a little below retail prices but above wholesale prices. Such pricing schemes usually produce the largest volume of total sales and profits. Price levels comparable or higher than nearby retail prices are only profitable to roadside stand operators when a superior quality product not available elsewhere in the vicinity is offered.

Price margins should allow for spoilage. It is good business to keep informed about wholesale prices, and to base the roadside price on this. Many operators use about a 25% mark-up. Most supermarket produce departments operate on about 35% average margin, with "specials" at lower margins. Two prices are profitable for most markets: prices for high quality produce and prices for low quality produce. Although farmers may wish to sell all produce harvested, it might be better for the markets' long term image to destroy products of inferior quality.

Do not change retail prices too often. People expect rather stable prices at retail stands, and dissatisfaction can develop when people start comparing price variations at a stand. "Two-for" or "three-for" pricing is very good for produce sales and can be used to increase volume. Round pricing in 5- and 10-cent units is helpful at markets in making quick change and faster service for customers. Some contend that this pricing system seems less commercialized than pricing by 9's. Pricing is one of the most important tools in roadside marketing. It can make or break a market. One should be sure it is neither too high nor too low.

Salesmanship and Sales Taxes

Salesmanship is simple. Like people and show it. Be friendly, honest, and practice the golden rule. Customers should be greeted by name on all occasions. If you have a poor memory for names, see that each customer is greeted as he comes to your stand. Friendliness and service establish repeat business. Give full measure on all purchases; don't split an apple or look for a smaller one to avoid giving extra weight. Over generosity, however, can eat up profits. Your prices should include allowance for this along with samples to entice sales and occasional treats for children.

Sales taxes are also important in considering whether or not to market directly. Taxpayers who consistently owe less than $5 sales and use taxes

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per month can file their returns on a quarterly basis by submitting a request to the Secretary of Revenue.

Advertising

Many veteran roadside market operators would be quick to tell you that good service, courtesy, quality produce, and reasonable prices cause "word-of-mouth" advertising. They would perhaps further state that this type of advertising is the most effective advertising method of all but, it takes time to establish and you need assistance from other forms of advertising. Other advertising forms include: signs, newspapers, radio and TV ads, mail-out materials, bumper stickers, and handout bills.

Regardless of the form used, advertising is basically done to inform the public of certain key factors concerning the market operation. Factors such as description of the products available, the hours of operation, days of availability, prices, market location, direction to the market, daily specials, etc., should be taken into consideration.

Perhaps the best method of advertising is signs, if you're on a busy road. Approach signs should be about 300 yards from the market if possible. Letters should be large (12-inches or larger if people are to read them when driving at a normal speed). Signs should call attention to the major products offered for sale.

Newspaper, radio, and TV advertising produce good results under some circumstances. These are very good advertising media for strawberries or similar types of products where you have a large volume of products to move and a short growing season.

Mail-out material is effective if a list is available. Some producers develop a list of customers and let them know what is for sale by post card or letter.

Handout bills at the stand are effective in letting people know when certain varieties of produce will be available.

It should be remembered that no single advertising program will suit all markets. Each operator must determine his own program. It is also good to remember that reverse effects can be realized from advertising if products are sold out or are of inferior quality when the customer arrives. Most markets tend to under-advertise rather than over-advertise.

Recordkeeping

Records are essential to the efficient operation of any business. They are just as important to a small business as they are to a large business, although records for a large business are usually more detailed.

Good records are useful to the manager in making decisions in the following areas:

1. *Production*—What to produce (including varieties). How much to grow and when to grow it (seasonal surplus and shortages).
2. *Products*—Received, sold, and dumped by days.
3. *Profit and loss statement*—What products made a profit, what items did not show a profit and why?
4. *Labor requirements*—Who how much, cost, how efficient, future use of labor.
5. *Growth of business*—(a) production expansion, showing the products in which expansion is needed, or whether production should be curtailed, (b) size of the stand (is more space needed?), (c) additional equipment that would promote efficiency, and (d) need for additional labor.
6. *Depreciation*—On building, equipment, farm machinery, and trucks.
7. *Tax purpose*—Amount of income tax (Federal and state), sales tax, and state and local property tax.

Summary

Thoughtful planning is the most important step in establishing successful mobile roadside markets. Careful estimates of consumer wants as well as producer desires and potentials will prevent many mistakes and will help avoid market failure. In developing and implementing direct marketing strategies, the following areas should receive careful consideration:

1. *County support*—If mobile roadside units are to prove their usefulness to the community, both the units and their concept must have the sanction and support of appropriate county leaders. Therefore, it is important to seek out such cooperation and support in the early planning stages.
2. *Consumer demand*—If the concept of direct marketing through mobile roadside demonstration units is to be successful, such markets must supply those products demanded by consumers.
3. *Producer supply*—It is important that the new market be able to meet the needs of its consumers. In short, adequate and constant supplies of demanded products is essential to the long term success of the market.
4. *Market location*—The market should be located on a well-traveled road near a small city, and, if possible, in an area where there are other markets. The market should (a) be visible from all directions, (b) have parking facilities adequate for 10 or more cars, (c) be located on the right-hand side of a road that leads into town, (d) have access to water

and electrical hook-ups, and (e) be positioned in natural or artificial shade.

5. *Physical factors*—If customers are to be attracted to the market, it must be generally neat and attractive. Specifically it should have originality of design; adequate refrigeration; easily read and informative signs; and appealing displays of uniform, quality produce.
6. *Operational factors*—It may be necessary for the market to operate long hours on those days when it is open. The time of heaviest sales may be between 3 p.m. and 6 p.m. An adequate supply of family labor is desirable. Also it is important that produce be harvested at the peak of freshness and that the farmer's sales station be in constant operation on sales days.

As a salesman the farmer should be alert and capable of cultivating satisfied long term customers. To get continuing trade of local customers, the farmer must sell high quality products, sell his products at competitve prices, and provide a wide variety of products.

Records are essential for providing the farmer with information about production, products sold, products dumped, profits and losses, labor requirements, growth in sales, and depreciation. They are also needed for tax purposes. Good records can aid the farmer in identifying problems and in correcting problems before they seriously affect the operation.

Direct Marketing of Fresh Fruits and Vegetables

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• There is a renewed interest among consumers in buying fresh fruit and vegetables directly from farmers. At one time, most food was sold directly from the producer to the consumer with no middleman. During the nineteenth century, with improved transportation, improved storage facilities, modern mass merchandising, and specialization, direct farmer to consumer sales all but disappeared. This eliminated many market opportunities for small isolated growers with limited resources. Increasing transportation costs associated with higher energy prices and consumers' renewed awareness of the importance of fresh fruit and vegetables in their diets are creating new opportunities for direct marketing of locally produced fresh fruit and vegetables.

The purpose of this paper is to identify direct marketing alternatives and how small isolated growers can relate to them. This discussion will be limited to the direct farm-to-consumer types of market alternatives.

Major direct marketing alternatives for fruits and vegetables include: local farmer markets, roadside markets, pick-your-own operations, and mobile farm markets such as tailgating, peddling, or food fairs. These alternatives are similar in that each eliminates the middleman so that produce is transferred directly from the grower to the consumer. However, each exhibits distinguishing characteristics. The following section deals with benefits to direct marketing followed by characteristics common to

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all producers selling directly to consumers. In subsequent sections, characteristics unique tc each major type of direct marketing system will be discussed.

Direct Marketing—Who Benefits

One reason for the renewed interest in direct marketing is the rising prices of food—the retail price of fresh fruits and vegetables doubled between 1967 and 1977. The farm share was less than one-third the retail value throughout most of this period. Both farmers and consumers, aware of the wide price spread between what the farmer gets and the consumer pays, are receptive to direct marketing. Distribution of the savings from direct sales is not well documented. One estimate was that consumers pay half the retail price while farmers receive twice the wholesale price. Regardless of the distribution, there is an opportunity for between two-thirds and three-fourths of the retail value to accrue to the consumer and/or farmer. Not all of that margin is profit or savings since the customer may drive further and in some cases may perform the harvesting function. The farmer must also provide services that would be performed by the retailer if the produce were sold by supermarkets or other retail food stores. In addition to lower prices, a USDA study showed that consumers buy from direct market outlets because they believe quality is higher. That is, produce is fresher, has a better taste, and/or a better appearance.[1] Consumers appear to be satisfied since most are repeat local customers who live within 10 miles of the market. Most direct market customers have average incomes and spend less than $10 per trip to the market. A Missouri study showed that the average customer at a roadside stand or farmers' market spends $7 per visit and that five or more items are bought on each trip to the market.[2]

From the farmer's point of view, direct sales to consumers may be his only alternative. This is particularly true since many of the larger food distribution systems do not allow local store managers the option of buying locally, including fresh fruit and vegetables. This means that all fruit and vegetables sold through these outlets originate in specialized shipping points—areas that are capable of massing quantities of a standardized quality for large volume shipments to their regional warehouses for distribution to the local store.

Many of the smaller producers, especially those in the TVA region, are not located where shipping point buyers are available. Thus, direct marketing may be the only market available, particularly for the farmer isolated from fruit and vegetable supply centers. To the extent that direct marketing provides increased marketing opportunities for small farmers, their ability to remain in agriculture and be successful is enhanced. To be successful, direct marketing, like all other marketing channels, must meet the expectations and aspirations of both the small farmer and the consumer. It must also compete with other food distribution systems.

Functions of Growers Selling Directly to Consumers

In effect, the grower who sells directly to consumers becomes a retailer in addition to being a producer. Adding the retail function increases the cost in terms of the farmer's time and other resources. The amount of added time and resources depends upon which type of direct marketing alternative is utilized.

The grower must coordinate supply with consumer needs. He must anticipate customer needs and plan his production to supply that quantity and quality. This means that he must select and produce the product mix—specific crops and varieties—that his customers prefer. He must allocate space and plan planting dates that meet the consumer needs rather than wholesale market needs. If the production seasons are long, late plantings or varieties to supply the late season market will require different production practices. For example, insect control will differ and generally must be more rigorous.

Selling directly to consumers means that the grower must become a price setter not a price taker as is the case with wholesale producers. Cost of production plus direct marketing cost plus expected profit represents one approach to pricing. This means that good records must be kept and budgeting practiced so that the cost of producing each fruit or vegetable enterprise can be documented and used in pricing. Competition should be considered when establishing price whether the grower is selling through a roadside stand, a farmers market, or on a pick-your-own basis. This means that the grower needs to know grocery store prices as well as other direct marketing prices in the area.

Price can be a rationing mechanism to slow up or increase sales. Price may reflect quality differences. That is, a higher price may be charged for high quality produce and a lower price charged for a product that is out of condition but still usable. Price can be used as a merchandising tool. For example, when supplies are heavy, volume discounts may be offered to attract the home canner. Pricing can also be used

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[1]Jon Weimer, "Pick Your Own and Roadside Stands: Who's Buying and Why," *National Food Review*, December 1978, NFR-5, ESCS, USDA, Washington, D.C.

[2]Jeffery Collins, Ramesh Munenkami, and Harold F. Breimyer, "Farm-to-Consumer Food Marketing in Missouri," *Economic and Marketing Information*, April 1978, Vol. XXI, No. 4, University of Missouri, Columbia, Missouri.

to attract special groups. One might set up evening specials or commuter specials to attract working people, senior citizens, ladies, etc. Pricing can be used to attract buyers without appearing to reduce price. For example, a buy two and get one free type sale allows one to, in effect, reduce price without developing the attitude that prices have been lowered permanently. Price can be used for a number of objectives, but the cost of production and marketing should not be overlooked regardless of the pricing scheme being pursued.

Coupled with pricing, the direct marketing producer must handle money. He has to keep change on hand and handle large numbers of small sales. Pricing in even units, i.e., 5¢ or 10¢ increments, can help reduce figuring and handling change.

Producers selling directly to consumers must decide in what units to sell—volume measures, count of items or bunches, or by weight. If weight is selected, scales must be accurate and should be checked out periodically by the weight and measures regulatory agency. If volume is used, a standard measure must be maintained so that each customer feels that he is treated fairly. The measure selected should also be the unit used for budgeting and pricing.

Growers who sell direct to consumers must be concerned with public relations and in general should like to be around people. Growers who sell from the farm to their own facilities are accountable for safety and should have liability insurance.

The grower will need to advertise—inform customers about supplies—and must meet government regulations regarding license, sales tax, health and building codes, and inspection and labeling. These considerations will be discussed for each type market since they tend to differ for various types of direct marketing alternatives.

Roadside Markets

Probably more has been written and said about roadside markets than any of the other direct marketing alternatives. Roadside markets vary from small units selling one or two products on a seasonal basis to firms selling a diversified product line to an elaborate facility on a permanent basis. Roadside market operators are retailers selling fruits and vegetables which they have produced or bought so as to provide a reasonable return. Their ability to achieve this goal depends on a number of characteristics.

Location—Location is often dictated by the location of the farm but that need not be true. A location should be selected with easy road access and a large local traffic flow. Also, success depends upon population density and composition (age, income, occupation, etc.), as well as the consumption habits of local residents and competition in the area. Studies in Ohio, Missouri, and Georgia showed that roadside markets tend to cluster near each other on well traveled highways.[3]

Product mix—The product mix depends upon the objectives of the operator. The mix differs for operators with year round facilities compared to those who operate in season to sell fruit and vegetables produced only on their own farm. In the Missouri study, 90% of the stands sold fruit and 75% sold vegetables. In the Ohio study all sold fruit and vegetables. Almost all the stands sold fruit and/or vegetables produced on the operator's farm, and a large proportion bought from other farmers or other supply sources. A number of products in addition to fresh fruits and vegetables were sold on these markets. In the Georgia study most stands sold 6-7 different products. For the operator's own farm, the mix should include items the local consumers want and should be planned to provide a supply over a maximum portion of the growing season.

Pricing—Effective pricing is one of the most difficult tasks performed by roadside market operators. In the Ohio and Georgia studies, roadside stand operators indicated that they used a markup over cost to establish prices. In Ohio the range was 23%-40%, while in Georgia the average markup over cost was 55% overall and 49% for fruits and vegetables produced on the operator's farm. Competition was also considered by many of the operators when setting prices. Pricing policies should be based on a variable margin determined for each product to reflect quality, competition, perishability, and the objectives of the operator.

Advertising and promotion—Advertising should be informative; it should provide a description of products, quantity available, location of the market, and hours and days of operation. Radio and newspaper advertising and signs located near the market are most popular. According to the Georgia study, signs were used by 81% of the markets and newspapers by 11%, and in Ohio 75% had signs at the market. Roadside stand operators in Ohio who had no signs on roads approaching the market had been prohibited from displaying signs by zoning regulations.

Pick Your Own

Pick your own (PYO) is not a new concept in produce marketing. Historically, it has been used to harvest residual or uneconomical produce—either

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[3]Jeffery Collins, Ramesh Munankami, and Harold Breimyer, "Farm-to-Consumer Food Marketing in Missouri," *Economics and Marketing Information*, April 1978, Vol. XXI, No. 4; Ed Watkins, "Ohio Roadside Market Management and Marketing Practices," ESS 571, MM 386; and E. E. Brown and R. L. Jordan, "Roadside Marketing in Georgia," August 1977, Research Report 254, University of Georgia (Athens).

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excess supplies or produce left after the primary harvest. Today, PYO is commonly used to harvest an entire crop of fruit or vegetables.

PYO operations are feasible for crops which mature at one time or those for which maturity is easily identified. Strawberries, peas, appies, and tomatoes are examples of crops well adapted to PYO. Sweet corn and watermelons are examples of products not well adapted to PYO marketing. Factors that make PYO appealing to growers is the reduction in harvest labor since PYO customers harvest their own produce and packaging and transportation costs are eliminated. In addition to quality and price considerations, many PYO customers (20% according to a USDA study) indicate that PYO is an enjoyable outing or family recreation activity.[4]

One study of strawberry customers in southern Illinois indicated that over 50% of the customers traveled less than 25 miles and three-fourths traveled 50 miles or less.[5] About 75% of the respondents came equally from areas with 1,000 or less population, 1,000 to 5,000 population or 5,000 to 10,000 population. Word of mouth (49%) was the most important mode of advertising (18%), roadside signs (11%), and radio (6%) being the next most important media. Customers ranked quality as being the most favorable aspect of the PYO operation with price and recreation being ranked next, respectively.

Pricing is also difficult for PYO operators. Generally, price decisions should be based on factors similar to those discussed for roadside markets. Cost of insurance, land for walkways and parking, and labor for supervising parking and picking should be included in the cost estimates. Pricing "specials" can be used to move surpluses or to encourage a more constant flow of produce over a week. Prices should be prominently posted and deviations limited.

Advertising and promotion is also critical to let people know when the season opens and the quantity, quality, and price of produce. Mailings to previous clients are a good way to inform them that produce is available. A telephone with a taped message might be feasible for larger producers with many clients.

Field layout, varieties, and planting and harvest dates are important to the PYO grower. Field plantings should be coordinated so that the earliest maturing crops are nearest the weigh-in station to minimize damage to immature crops. Products that require the most supervision should be located near the checkout area. For example, the grower should plan to harvest sweet corn for customers to minimize insect and bird damage.

Adequate, convenient parking is a must for PYO operators. Parking and control of clients can be handled in a number of ways. Centralized parking with provided travel to and from picking areas may improve traffic flow and reduce farmer liability. Other services such as restrooms, playgrounds for children, and refreshment stations may make the activity more pleasant to customers, but must be considered in estimating cost and in pricing.

Ginder and Hoecker[6] and Mizelle[7] have summarized major advantages and limitations of PYO operations. Advantages to the producer are:

1. The requirement for seasonal harvest labor and related harvest costs are reduced. However, other costs such as check-in and check-out personnel and supervisory personnel may increase.
2. Grading, packing, and storage costs are eliminated.
3. Producers receive payment when produce leaves the farm and middlemen commissions are eliminated.
4. Yields are higher for most crops.
5. Price variability risks are reduced and producer has more input into final price.

Disadvantages to the producer are:

1. Producer assumes additional liability for accidents.
2. PYO operations require long hours and many open days during harvest season.
3. Bad weather or the lack of customers may adversely affect returns.
4. Producers are retailers and thus must assume additional responsibilities for which they may not be prepared.
5. Management requirements are more demanding.

Farmers' Markets

Farmers' markets are an increasingly popular form of direct marketing. Successful farmers' markets are very helpful in increasing the incomes of small farmers who participate in them. Farmers' markets range from the large regional market like the Atlanta market that draws produce from long distances to the small local type market. Farmers' markets in some ways resemble a collection of roadside stands each operated independently by the

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[4]Collins, *Op. Cit.*

[5]J. W. Courter and C. C. Zych, *Survey of Pick-Your-Own Strawberry Customers*, 1969, Fruit Growing No. 24, University of Illinois.

[6]Roger G. Ginder and Harold H. Hoecker, *Management of Pick Your-Own Marketing Operations*, June 1975, Cooperative Extension Service, University of Delaware.

[7]William O. Mizelle, Jr., *Marketing Alternatives for Georgia Fruit and Vegetable Growers*, April 1978, Cooperative Extension Service, University of Georgia, Bul. 805.

farmers but offering consumers convenience and variety. Most city farmers' markets have merchants who buy and sell, wholesale buyers, and farmers who sell only their own produce. A number of the smaller markets restrict selling to "certified" local producers. Most farmers' markets are located in urban areas and are facilities owned by state or local governments. Some are owned by grower organizations and some by community development groups according to a Louisiana State University study.* Farmers pay a fee for use of space—either on a trip or daily basis or for the season.

The number of farmers involved and the space allocation impose certain constraints that may be avoided in roadside stands and PYO markets. Unlike roadside stands located in rural areas, farmers' markets are usually required to comply with local health and business regulations and zoning restrictions. Major advantages to the producers are:

1. Limited liability for customers since they are not on the farmer's premises.
2. Parking space, restrooms, etc., are not the farmer's responsibility. Public facilities are provided by the market.
3. Attracting customers is a function of the market and farmers do not have to advertise individually.
4. Since a number of producers (usually more than 10) sell on the same market, continuous supplies by an individual producer are not so critical.

Disadvantages are:

1. Time required to transport and sell on the market takes personnel away from the farm operation.
2. Producers may have to rent a stall for the year when they need it only a few weeks. On most markets, the producer can sell only produce grown on his farm.
3. Market hours are controlled by the policies set for the farmers' market which may not be ideal for producers, and advertising, or lack of it, is controlled by the market.
4. Markets that are ill located may not attract consumers. Peddlers and hucksters may operate to depress price. This situation is particularly prevalent in the larger and older city markets.

Other Direct Farm-to-Consumer Markets

Interest in direct farm-to-consumer markets is high and activity to sponsor and assist such markets is growing. One of the more successful efforts are the Food Fairs sponsored by the Agricultural Marketing Project in Nashville, Tennessee. Operating with low overhead, usually out of church parking lots and with no governmental support, the Agricultural Marketing Project (AMP) has been able to initiate projects throughout a number of Southern States. AMP provides initial organizational help and ongoing technical assistance but works to organize the farmers into cooperative associations which can continue to exist as independently operated and self-financial activities. While AMP has been successful as a privately funded operation, the limits to private funding would clearly limit the extent to which such efforts can spread. These sales are conveniently located for customers and producers. Sales are restricted to fruits, vegetables, and other products produced on the seller's farms or gardens.

Producers have the same time problem when patronizing the Food Fairs as the farmers' market. They must take time for transporting and for selling. Most Food Fairs are open from 7 or 8 a.m. to 4 or 5 p.m. There is normally only one sale per location per week. Sales are usually conducted from the back of the farmer's own truck.

Tailgating is another type of direct marketing that resembles Food Fairs except that the farmer is on his own. He usually parks on a busy street and sells from the back of a truck or goes through neighborhoods from door to door. Tailgating requires no fees except a local license where applicable. This method is time consuming but location is flexible since the producer can move to a new location if business is slow. As regulations are developed that restrict peddling and impose high cost fees and as restrictions are enforced about parking and retarding traffic flow, tailgating becomes less attractive even for producers who have an adequate amount of time.

Summary and Conclusions

Most fresh fruits and vegetables sold in the U.S. are marketed through large regional and national food distribution-retail systems. Recent trends such as higher energy and labor costs and the emphasis customers are placing on fresh, nutritious fruits and vegetables in their diets have caused renewed interest in direct farm-to-consumer marketing. The consumer generally wants a fresh, high-quality product at a "good buy." Direct market clients are about average income, local-repeat customers who spend less than $10 per trip to a direct market outlet.

The producer should identify marketing alternatives available to him and select the outlet that will generate maximum profit and/or that is consistent with his temperament. If he chooses an onfarm

*Ewell P. Roy, Dan Leary, and Jerry Law, *Organization and Operation of Louisiana Farmers' Markets*, May 1978, DAE Report No. 532, Louisiana State University, Baton Rouge.

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operation such as pick-your-own or a roadside stand, he should like people and be willing to have them on the premises. Parking, access, and proximity to a large number of buyers are essential for success. The producer should know his customers' tastes and preferences for specific crops, quality, and market facilities. He should also plan production to meet customer demands as well as his own labor schedule and other resources.

Direct farm-to-consumer marketing means that the grower must also perform retailing functions. He must develop a pricing system, plan to make change and handle large numbers of small transactions, and inform customers about supplies, quality, price, and service available. For on-premise types of markets, the grower is also subject to added liability and regulations regarding health and safety of customers.

The potential for direct marketing is uncertain, but most agree that it will represent a larger share of fruit and vegetable marketing in the future.

Conventional Fruit and Vegetable Marketing Programs for Small Farms

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• My remarks will concentrate on the marketing arrangements that can be made by a small farm marketing firm to implement conventional fruit and vegetable marketing programs. Direct marketing opportunities for fruits and vegetables were discussed earlier by Joe Free. I will make only limited references to direct marketing or to organization of marketing firms.

The relative importance of the conventional marketing outlets versus direct marketing outlets varies widely, both between areas and between fruit and vegetable crops grown within an area. A 1973 study of small farm outlets for fruits and vegetables in northeast Louisiana documents a market situation that is typical of situations where small farm programs operate. This study indicated that sales through conventional marketing channels ranged from a high of 78% of the tomato sales to a low of 2% of the Irish potato sales. Outlets for the specific vegetables marketed in the northeast Louisiana area are shown in table 1. Generally, the larger the acreage of the vegetable produced in the area, the larger the percentages of that vegetable marketed through conventional marketing channels. Direct markets provide important outlets to small farmers, especially when total production in the area is limited. As production increases, however, direct outlets become saturated and conventional market outlets must be found if the enterprises are to continue to expand.

Some of you work with small farm marketing situations where (1) only direct marketing programs are used while others are working with marketing situations where (2) conventional sales programs are

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Table 1. Marketing channels for vegetables, northeast Louisiana area, 1972

Vegetable	Marketing channel	
	Farmers markets and area retailers	Wholesalers, brokers, and processors
	(percent)	
Sweet Potatoes	28	72
Tomatoes	22	78
Peaches	30	70
Watermelons	35	65
Peppers	34	66
Peas	93	7
Corn	95	5
Beans	95	5
Leafy Greens	80	20
Squash	80	20
Irish Potatoes	98	2
Okra	65	35
Cantaloupes	90	10
Cabbage	60	40

used. These programs may have been in operation for some time and a marketing cooperative or other firm has been formed to conduct a marketing program. I will attempt to make my remarks applicable to both situations. For those who work in situations where conventional marketing outlets are used, my remarks should be used as a basis for reexamining the current marketing arrangements. For those of you who work in situations where conventional marketing is not used, you may evaluate the marketing arrangements to determine if one of the alternatives or some combination of the alternatives could be used in your area. Also, consider the organizational structure that could be used. The organization should be structured to do the marketing job that needs to be done. Care should be taken not to get the cart before the horse by establishing an organization and then trying to make it fit the marketing job. Dr. Williams will discuss organizational structure in more detail in the next session.

What Terminal Buyers Want

To understand the problems that small farm marketing firms have encountered when using conventional fruit and vegetable marketing outlets, it will be helpful to first look at some of the things that terminal market produce buyers are looking for from those from whom they buy fruits and vegetables. Terminal market buyers may be buyers for a chain store, a voluntary chain group, or a large wholesaler. Although their requirements may vary slightly, they are generally looking for the following characteristics from their source of supply:

1. A large volume from one source so they do not have to make many small purchases.
2. A dependable supply which will be available over a long period of time so they do not have to keep locating new sources.
3. A consistent quality of the product and as high a quality as can be purchased at the market price. They also desire to have a variety of consumer and wholesale packs available from the source so they can meet the varied demands of their retailers.
4. A full line of produce so they can buy mixed loads. They can then meet their need for a variety of produce without having to contact many different sources.
5. A source with an established reputation to minimize the risks of not obtaining the quality and condition desired.

Five characteristics typical of many small farm marketing firms which are handling conventional fruit and vegetable sales are:

1. The packinghouses handle relatively small volumes compared to other commercial packinghouses.
2. The small farm producers tend to be seasonal producers and have limited experiences in producing the fruits and vegetables.
3. The packinghouses are small and the packing equipment is often marginal. More specialized packing equipment, such as vacuum coolers and hydro-coolers, are usually not available.
4. The marketing firms do not have established reputations for the fruits and vegetables being sold.
5. The management is often inexperienced and has limited knowledge of grades, sizes, containers, and other requirements for packing.

A comparison of the small farm marketing firm's situation and the terminal market producer buyer's needs suggest that small farm marketing firms do encounter problems in meeting many of the needs of terminal market produce buyers. They encounter problems in meeting volume, timing, containers, delivery schedules, marketing experience, and product quality. Although terminal market buyers do some business with these small firms, many have tended to bypass these firms in favor of larger produce packers located in established fruit and vegetable production areas. This does not suggest that there have not been successful small farm marketing firms. There have been successful firms, but these firms have, through application of marketing arrangements, overcome some of their problems so they could meet the needs of their terminal market produce buyers.

There are several alternative conventional marketing arrangements that can be used to enhance the chances of success of a small farm marketing firm. I will discuss six of these alternatives along with some of the advantages and disadvantages of each. It should be stressed that these marketing arrangements are not mutually exclusive, but they can be and often are used in conjunction with each other.

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Store-Door Delivery

Store-door delivery refers to a system of selling fruits and vegetables where the marketing firm establishes a route sale for direct delivery to retailers in the surrounding area. Store-door delivery is often used by individual producers as well as by marketing firms. My comments, however, will be concerned with store-door delivery as used by the marketing firm.

A University of Delaware study has shown that two-thirds of those using store-door delivery had routes that extended out to a 40-mile radius and the remaining one-third had routes that extended out to 60 miles. Cost of store-door delivery will vary depending on the travel required per delivery and the nature of the service provided. Some variations of the store-door delivery services are: (1) platform delivery of the packed produce, (2) delivery inside the store or cooler, and (3) stocking of the retail display case.

Advantages:

1. Prices received are higher than packinghouse prices.
2. The firm can establish its own market reputation within the area.
3. Container costs can be reduced since the containers can be returned.
4. An opportunity exists for selling smaller quantities than wholesale produce buyers want.

Disadvantages:

1. The cost of transportation, labor, and other costs associated with making store-door deliveries may be high.
2. The volume that can be sold within the area is limited and it is usually not feasible to expand beyond a 40- to 60-mile radius.
3. Store-door delivery operations may conflict with packinghouse operations if both are carried out at the same time.
4. The line of produce offered may be more limited than retail stores desire.

Shipping Point Buyer Sales

Shipping point buyer sales are those made by the marketing firm to a local shipping point buyer who in turn sells the fruits and vegetables to terminal market buyers. Shipping point buyers may be other area packinghouses, produce dealers, or other handlers who have developed outlets to terminal market produce buyers. Small farm marketing firms may sell part or all of their produce through such an arrangement depending on the local situation.

Advantages:

1. The firm does not need to establish a terminal market sales program of its own.
2. The shipping point buyer may provide guidance to the packinghouse manager on grades, containers, size, etc.
3. The volume of produce that can be moved is larger than can be moved through store-door delivery.

Disadvantages:

1. The firm does not develop terminal market outlets of its own.
2. The firm often has limited information on market prices and conditions.
3. The bargaining position of the firm is weak, especially if there are a limited number of shipping point buyers in the area.

Manager-Salesman Combination

The manager-salesman combination is a sales arrangement whereby the manager of the marketing firm also serves as the firm's salesman to make the terminal market sales of the fruits and vegetables. Generally, the manager of a small farm marketing firm has the primary responsibility for managing the packinghouse and working with the growers. Although there are exceptions, these managers often have limited experience as professional produce dealers. Therefore such managers are placed in the position of learning the produce business and developing markets, as well as managing the packinghouse and grower operations.

Advantages:

1. The cost of obtaining a separate professional salesman is avoided.
2. The firm develops a market reputation of its own.
3. Problems of coordination between the packing and selling operations are minimized since the manager does both.

Disadvantages:

1. The manager must be a "jack of all trades" and divide his efforts between working with producers, supervising packing, and making sales.
2. The manager often has limited market knowledge and contacts.
3. The volume of sales is limited by the ability of the manager.

Selling Broker Sales

Selling brokers are individuals or firms located in the production area who arrange for fruit and vegetable sales between the local marketing firm and terminal market buyers. The selling broker works for and is paid by the local marketing firm. Brokers usually charge for their services on a per unit basis. A number of brokers are usually available in established fruit and vegetable production areas, but in areas that have limited production, brokers are sometimes difficult to locate. A broker may be located some distance from the packinghouse and still perform the brokerage service,

but coordination between the broker and marketing firm is more difficult if they are not located in the proximity of each other.

Some brokers arrange an exclusive sales agreement with the marketing firms and handle all the firm's sales during the year. Other brokers work on an individual sales basis and may handle only a small percentage of the sales. An exclusive sales arrangement generally results in a closer working relationship between the firm and the broker, but the flexibility of the firm in marketing is limited.

Advantages:

1. The firm obtains the services of a professional produce seller.
2. Personnel overhead for selling is kept at a minimum.
3. The potential for increasing sales volume is large.

Disadvantages:

1. If an exclusive brokerage arrangement is used, then the sales options of the firm are limited.
2. Coordination and communication problems between the packing and selling functions occur unless the broker is located near the packinghouse.
3. The cost of brokerage sales is high if large volumes are handled.

Buying Broker Sales

A buying broker is an individual or firm located in the production area who arranges fruit and vegetable sales between a terminal market buyer and local marketing firm. The buying broker works for and is paid by the terminal market buyer for buying the qualities, quantities, and packs desired by the terminal market buyer. Few buying brokers are available in most production areas.

Advantages:

1. No brokerage cost is incurred by the firm.
2. Large volumes of sales can be made on occasions.
3. No continuing commitments must be made by the firm.

Disadvantages:

1. The outlet is not dependable since the broker is working for the buyer.
2. The broker could be expected to provide little market information.
3. Few buying brokers exist in most production areas.

Inhouse Sales Staff

A final sales arrangement option is for the marketing firm to employ a produce salesman or a produce sales staff to sell the produce directly to terminal market buyers. In this arrangement, the salesman works under the manager and has exclusive responsibility for the firm's produce sales.

Advantages:

1. A close working relationship can be established between the packing and sales functions of the firm.
2. The firm can develop a market outlet and reputation of its own.
3. The sales staff can provide market information to producers and to the packinghouse.

Disadvantages:

1. Personnel overhead of the firm is increased substantially.
2. Some implicit limitations are placed on the use of other sales options, such as the extensive use of selling brokers.
3. Sales opportunities for the firm will be limited by the abilities of the sales staff.

The advantages and disadvantages of each of these sales arrangements must be evaluated against the requirements of the local marketing firm. No single arrangement should be expected to solve all the marketing problems, so the small farm marketing firms should expect to use some combination of sales arrangements. But from my experiences some generalities can be made about the usefulness of the alternative marketing arrangements. Sales through selling brokers and sales through shipping point buyers seem to be two of the most useful sales arrangements for small farm marketing firms. These are sales arrangements that combine smaller volumes from several marketing firms through one local sales outlet. This consolidation of volumes solves one of the basic problems that produce buyers encounter in dealing with small farm marketing firms.

Sales arrangements that are somewhat useful are the manager-salesman combination and store-door deliveries. The manager-salesman combination has been used successfully where the manager had some knowledge of the produce business and developed the ability to sell. Packinghouse management may suffer if too much of the managers' time is devoted to selling. Store-door deliveries constitute an effective side enterprise for some marketing firms, but sales volume limitations reduce its appeal.

Of limited use are the inhouse sales staff and sales through buying brokers sales arrangements. The volume of produce handled by most small farm marketing firms is too small to justify an inhouse sales staff. Sales through buying brokers are used very little since such brokers are nonexistent in most areas where small farm programs exist.

Summary

Small farm marketing firms acting independently cannot fulfill many of the needs of terminal

marketing produce buyers. Alternative sales arrangements based on the local situation must be considered if effective conventional marketing system for fruits and vegetables are to be established. Marketing through selling brokers and sales through shipping point buyers are the most useful arrangements for small farm marketing firms. Manager-salesman combinations and store-door deliveries are of some use to many firms. Combinations of two or more of the sales arrangements may be required to be used by many of the firms to solve their unique local marketing problems.

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Ideas for Development Programs with Small Farmers

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PANEL

Problems in Marketing Faced by Small Farms and Suggested Future Efforts by Extension to Deal With These Problems

HAROLD LOVE, Moderator
G. ANSEL KING, JR., Recorder

• This discussion group worked on the premise that the success or failure of small farm Extension programs would be determined at the county level.

1. What can be done at the county level to foster and expand small farm programs?
   a. County location is very important in determining the marketing option available:
      (1) Direct marketing
      (2) Conventional marketing
   b. Direct marketing is limited in scope and cannot handle total supplies in most areas. We must look at other options as well.
   c. Some areas have markets and cannot get supplies of produce. Therefore, county staffs can help coordinate supply and demand.
2. What are some specific problems encountered in areas with low income groups?
   a. South Carolina has had some experience with small farmer's organizations. Management seems to be the main problem.
   b. Arkansas has had some processing groups formed, but returns look bad on cucumbers and okra. Also, problems arise with producers and processors in joint meetings when commodity returns are negative.
   c. In Virginia, processing buying stations tend to move from county to county or area to area and destroy any organization on the part of producers.
3. County agent role:
   a. Oklahoma—Political realities and problems must be faced.
   b. Georgia—Must walk the middle road between State staff, producers, time limitations, and other programs.
   c. Mississippi—Best results have come from county farmers markets where county office is directly involved.
   d. Virginia—Consumers put pressure on for local markets rather than producers. State regulations must be explored.
   e. Kentucky—Low overhead and simple rules have ensured success for local markets in Kentucky.
   f. South Carolina—Extension staff has to present the facts and let the chips fall.
   g. Some markets, in order to stay open longer, must have more education programs designed by county office to help with other commodities.
4. Why do people frequent local markets?
   a. Quality, variety, price, and quantity.
   b. Conveniently located and friendly atmosphere.
5. Characteristics of small farmers livestock market program:
   a. Help groups purchase purebred stock. Raise overall quality.
   b. Graded feeder pig and calf sales that will handle small lots to allow small farmers to participate.
6. Summary:
   a. The county Extension staff and paraprofessionals can provide the impetus needed in the job ahead. However, individuals must feel that they have a commitment from the administration in support of these programs.
   b. Strong leadership and organization of interested groups is highly desirable.
   c. Time commitment of agents must be made.
   d. Education of consumers and farmers must be an ongoing job.

Future Directions for Extension Efforts With Small Farmers in the South

RUPERT JOHNSON, Moderator
M. F. ELLMORE, Recorder

• The work group included persons representing a wide variety of responsibilities including: program directors, farm management specialists, area small farm program coordinators, and extension agents. This variety gave a broad scope to the observations made as the group addressed the assigned topic. This summary attempts to capsule the thrust of the discussion.

Concern was expressed by one participant that there are pressures for expanding programs while there seems to be equal pressure to limit the resources available to Extension.

The group generally agreed that Extension is getting results and that a great deal of our effort is, and has been, directed to those farmers identified as small farmers.

It was felt that Extension should document what is being done; should develop different and better criteria for program evaluation based on more specific objectives. More resources similar to the Expanded Food and Nutrition Program would help.

It was agreed that Extension should take the lead in ensuring that small farmers are aware of the assistance that is available to them from other Federal and state agencies. Extension should, at the county level, develop a small farm advisory council with most of the membership from the small farm group. It is recognized that there are wide regional and within state differences in the distribution of "small" and "commercial" farmers.

The group expressed a feeling that all levels of Extension personnel need training in concepts as well as in practices related to the small farm program. It was felt that adjustment in attitude may be needed more than subject matter. However, it was agreed that more small farm research is needed to make subject matter more relevant to the situation.

Finally, it was agreed that Extension should seek money to support educational aides who could work with small farmers on a one-to-one basis.

Management Tools and Concepts Usable in Working With Small Farms and/or How to Adapt Them

DANIEL B. SMITH, Moderator
RALEIGH JOBES, Recorder

• The first topic of discussion in this group session was "What are the objectives of a farm management program for small farmers?" After discussion by the group participating, it was believed that we must assume that the major objective of small farmers was of an economic nature. Since our training in farm management is oriented around economic decisions, that is the area that farm management can make a contribution to as we educate small farmers.

Other objectives mentioned were: (1) to maximize utility or satisfaction—small farmers are generally unaware of the opportunity cost concept, and (2) the objective may be economic survival rather than to increase net income.

It was pointed out that according to our definition of economics all farmers are limited resource farmers. The discussion then seemed to center on the concept of an emphasis for special programs for small farmers. The farm management tools discussed which the group believed had application to special programs for small farmers were:

1. Budgeting
2. Linear programming
3. Cash flow analysis
4. Marginal analysis
5. Financial statements
6. Records
7. Estate planning
8. Tax management

The following comments were made regarding the use of the farm management tools:

1. Records should be taught at the level needed to provide certain benefits to the audience with which one is working. These benefits need to be emphasized (i.e., Social Security).
2. Partial budget concepts need to be illustrated and encouragement given to their use. Partial

budgets may not be used in a formalized manner, yet the procedure needs to be presented to the group with which the individual is working.

3. Enterprise budgets are useful because the clientele can associate to them by crops, livestock, and so forth.
4. Processes used in enterprise budgets are not designed for small farmer use. Research needs to be done to prepare enterprise budgets for this special group of clientele.
5. Linear programming analysis can be beneficial; however, it may be that analyses need only be done for representative situations to show the effects of changes or prepare a linear programming matrix such that the clientele have only limited access to changing the data for making a computer run.
6. Marginal analysis concept should be used but must be clearly illustrated for effectiveness.
7. Cash flow analysis is an important part of family money management. It should be tied to recordkeeping. An approach that may be helpful to begin the recordkeeping process might be to use home economists for personal family problems and begin with records from the social security approach.
8. Estate planning is extremely difficult to explain to this audience so that they understand it and can use it. But at least the simple concepts of wills should be emphasized.

One concern expressed in this session was that if management is not taught such that it can be learned, then if people graduate from such a program their technical ability and financial extensions may exceed their management ability. The session was concluded with a brief discussion of research needs. It was stated that before research is done in the area of small farms and before it can be effective, it is necessary to identify what our objectives are toward small farms. It was also noted that much of our efforts assume unused labor which may not be the case due to other endeavors using some of their labor.

Training for Paraprofessionals Who Work in Farm Management Programs for Small Farm Programs

RON ATKINSON, Moderator
KIM KENNEDY, Recorder

1. Training for paraprofessionals should have different components.
   a. Communication skills—sociological approach.
   b. Upgrading of skills—technical expertise.
   c. Bigger picture of total community.
      (1) Church and other organizations.
      (2) Community leaders.
2. Training of professional or paraprofessional is a process that should involve:
   a. How to make first visit and work with people—techniques of relating to people.
   b. Familiarize paraprofessional with adoption process—small farmers are laggards and need to be motivated in different ways.
   c. Technological information should be taught by field staff.
      (1) Two-week orientation.
      (2) Other agencies and organizations.
      (3) Other staff members.
   d. Paraprofessionals should be encouraged to practice the recommended ideas on their own farm.
   e. Paraprofessionals will have ups and downs—need to be counseled.
   f. Need to conduct survey initially.
      (1) Provides publicity—approval of community.
      (2) Provides list of farmers.
      (3) Provides sociometric information.
         (a) Small farmers look to large farmers.
         (b) Leaders can be identified.
3. Maybe we are attempting to train individuals we have not identified.
   a. What criteria do we use to select paraprofessionals? (Ten years farm experience, etc?)
   b. Each state has varied selection criteria.
4. Content of paraprofessional training.
   a. Basics.

(1) Economic principles.
(2) Managerial decisionmaking concepts—then recordkeeping, etc.

b. Paraprofessional seem to be able to digest basic concepts, even though few have much above high school education.

c. Tools needed.
(1) Budgets—partial budgeting.
(2) Minimizing costs.
(3) Financial management.
(4) Cash flow—could avoid problems of underemployment.
(5) Simplified programming in some cases.

5. Should we send paraprofessionals to college?
a. Some said we should since farm management is too complex.
b. Need to provide extended training.
c. The question was brought up—When does the paraprofessional become a professional?
d. Could we make some paraprofessionals into professionals?

6. Training needs to make assistants aware that many decisions are made by wife.

7. Training could involve:
a. Workshops.
b. In-service training.
c. Slide cassettes.

8. Training for professionals working in small farm program should include:
a. Basic communication skills- sociological information.
b. Staff development training.
c. Train professionals in how to be supervisors.
d. How to evaluate paraprofessionals.
e. How to encourage accurate evaluations.
f. How to involve other professionals.

Summary: Five Regional Small Farm Conferences

OVID BAY
Coordinator, Small Farm Programs
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• The U.S. Department of Agriculture (USDA), the Community Services Administration (CSA), and ACTION sponsored five regional small farms conferences during the summer of 1978. The purposes of the conferences were:

1. To provide a national voice for small, limited-resource farmers.
2. To learn of problems that are most important to them.
3. To provide the small farmer more direct access to Federal programs.
4. To identify needed program improvements.

The conferences were held at the following locations:

Montgomery, Alabama	July 25-26
Des Moines, Iowa	August 16-17
La Grande, Oregon	August 22-23
Albuquerque, New Mexico	September 6-7
Poland Spring, Maine	September 27-28

Each regional conference was cooperatively planned and conducted by host organizations representing USDA and CSA. About eight small farmer delegates from each state, including Alaska and Hawaii, attended the regional conference in which their state participated. The travel and daily expenses of these small farmer delegates were paid by the three sponsoring agencies and, in the Southwest region, by the Four Corners Regional Commission.

About 400 small farmer delegates participated in the five conferences. Delegates were selected by committees of state and local organizations. The selection criteria were that the delegates be considered full- or part-time small farm operators by their neighbors and others in the community, and that they be able to represent effectively the needs and problems of small farm operators and their families in a conference setting. Also, each state delegation was to represent a mix of women, men, minorities, ages, and type of family farm operators. The farmers represented a mix of farm types, size of operation, and income levels. Informal consensus among observers and farmers was that the delegates were family farm operators, dependent on agriculture for a significant share of their income.

Each regional conference agenda included the following topics:

1. Access to capital and credit
2. Production and management
3. Marketing
4. Additional income
5. Farm family living
6. Alternate energy sources

Regional conference agendas were developed from these topics. The regional conference sessions were conducted as small groups, maximizing the participation of all the delegates. Federal, state, and local agency personnel and persons interested in small farm problems attended the conferences as observers, but did not take active part in the workshops.

All of the problems submitted by the small farmer delegates before a conference or during first-day work sessions and the priority ratings (from 1 to 5—with 5 meaning of the utmost importance) of these were accumulated at each conference. A portable terminal was used to feed results to a computer located at Texas A&M University. The printout from the computer was taken to a printer the first evening of the conference and copies were printed and distributed the second morning of each conference.

Regional Concerns

Each of the regions had its own set of priorities. Briefly, these were the highlights of the individual conferences:

Southeast—As in all the regions, farm income ranked among the top concerns in the Southeast. The feeling was especially strong here that too many groups are in a position to manipulate market

prices. Middlemen were singled out for particular criticism, as was the Federal Government, due to its import-export policies. Strong support emerged in favor of proposals to limit agricultural imports, label them as nondomestic, and require them to be produced under the same restrictions as American-grown goods. Credit was another issue of major importance. The size of loans available, repayment periods, and interest rates were all criticized as inadequate. The problems beginning farmers face because of high land and equipment costs received special mention. A theme also appeared in the Southeast that would be repeated in the Western regions: the handicaps imposed by minimum wage laws and the Food Stamp Program on farmers who need to hire labor. Pollution controls, high taxes, and complicated government forms attracted additional unfavorable comment. Among other items cited in this region were the needs for expanded market outlets, more onfarm storage facilities, and better consumer education.

Midwest—Support for the American Agriculture Movement's program was strong among some delegates to the Midwest conference, as it was among many representatives to the Northwest and Southwest meetings. The Midwest conference heard repeated criticisms leveled at the Government for favoring consumers over farmers with low commodity prices. As in the Southeast, credit problems were often cited. Specifically, there was a feeling that small farmers need long-term, low-interest Federal loans and that Farmers Home Administration should provide more management assistance after granting loans. The delegates criticized FmHA for taking too long to process loan applications and for not providing adequate assistance with home loans. Inheritance taxes were a special concern in this region. The same was true of the threat posed to farm families and rural communities by foreign investment and other nonresident purchases of agricultural land. Energy use also attracted significant comment. There was broad-based support at the conference for more research on solar energy, methane, gasahol, and wind power. The delegates further recommended establishing a national policy to keep young farmers in the country and criticized high, inequitable tax rates. They also opposed cutbacks in Extension programs and urged labeling of imported farm products.

Northwest—Out of the top 20 problems cited in this region, more than half focused on low commodity prices, high production costs, and inflation. The delegates placed considerable blame on the Federal Government for what they interpreted as its willingness to placate consumers with cheap food at the expense of farm producers. Closely related to these issues was the complaint that food imports do not have to meet the same high standards as domestically grown products. Credit, while a concern, was not as outstanding an issue in the Northwest as in several other regions. Of greater importance, apparently, were inheritance laws and the burdens they impose on surviving spouses and children. There was considerable apprehension about the threat to agricultural land posed by developers and foreign investors. The importance of consumer education and the lack of farmers' political power were also commented upon extensively. The need for innovative production practices was a significant issue to some delegates, but not to the conference generally.

Southwest—Water and water-related issues accounted for a quarter of the top 20 problems rated by all delegates to the Southwest conference. Water misuse, rising costs, and the restrictions on irrigation imposed by the Reclamation Act of 1902, were particularly troublesome in this region. Credit, again, was a major concern, with FmHA criticized for not having loan funds available early enough in the crop year to be of maximum use. Federal policies and regulations, ranging from set-asides to Energy Department procedures, sparked negative reactions. Also, there was agreement on the need for more market outlets and fewer agricultural imports. The delegates stressed the responsibility of Federal agencies to make information about all government programs available to small farmers.

Northeast—Discussion in this region's work groups focused attention on the Northeast's need to reduce its dependency on food imported from other parts of the country. Organic farming and the lack of adequate market outlets were major subjects of discussion, as were credit, consumer education, energy conservation, and the need for more sources of onfarm income. Inheritance taxes drew unfavorable comment, and mention was made of the difficulties farmers have in competing with industry for workers. Also, the delegates noted the need to increase their net incomes by mastering construction skills that would enable them to avoid hiring outside labor.

Conclusions

Conclusions from the conferences included:

1. Delegates thought commodity prices were too low and costs too high.
2. There is no effective national voice for the limited resource, small farmer.
3. Small farmers have not benefited from Federal programs in proportion to their number or need.
4. The single most important problem with Federal programs intended for small farmers is that too few small-scale operators know about or participate in them.

Based on these conclusions, the sponsoring agencies have started and in some cases intensified efforts to work directly on small farm problems identified at the conferences. For example, Farmers

Home Administration has allocated more than $400 million in annual operating and farm ownership loan funds to assist limited resource farmers, and FmHA is revising procedures and regulations to improve the operations in county offices.

For a copy of the Small Farms Report from one or more of the five regions, or a copy of the National Summary Small Farms Report, contact Ovid Bay, SEA-Extension, U.S. Department of Agriculture, Washington, DC 20250 (202-447-6473).